

625.13  
N 484h  
v. 12  
pt. 2

NEW YORK STATE BRIDGE AND TUNNEL COMMISSION

AND

NEW JERSEY INTERSTATE BRIDGE AND TUNNEL COMMISSION



THE HOLLAND TUNNEL  
CONTRACT NO. 12

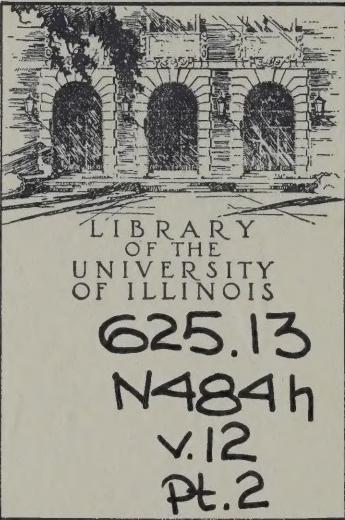
FANS, MOTORS, TRANSMISSION AND CONTROL

NEW YORK

NEW JERSEY

CONTRACT DRAWINGS 1 to 25

1925



RECEIVED  
SEP 28 1925

A. C. WILLARD

Ans. \_\_\_\_\_



NEW YORK STATE BRIDGE AND TUNNEL COMMISSION

AND

NEW JERSEY INTERSTATE BRIDGE AND TUNNEL COMMISSION



THE HOLLAND TUNNEL  
CONTRACT NO. 12

FANS, MOTORS, TRANSMISSION AND CONTROL

NEW YORK

NEW JERSEY

CONTRACT DRAWINGS 1 to 25

1925



21 April 49 TALMADGE

625.13  
N484h  
v.12  
pt.2

**NEW YORK STATE BRIDGE AND TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE BRIDGE AND TUNNEL COMMISSION**

**NEW YORK STATE BRIDGE AND TUNNEL  
COMMISSION**

GEORGE R. DYER, Chairman

E. W. BLOOMINGDALE, Vice-Chairman

McDOUGALL HAWKES

A. J. SHAMBERG

WILLIAM W. MILLS

Commissioner of Plant and Structures of New  
York City

Roy G. FINCH

State Engineer and Surveyor

PAUL WINDELS, Counsel

MORRIS M. FROHLICH, Secretary

**NEW JERSEY INTERSTATE BRIDGE AND  
TUNNEL COMMISSION**

THEODORE BOETTGER, Chairman

JOHN B. KATES, Vice-Chairman

THOMAS J. S. BARLOW

JOHN F. BOYLE

ISAAC FERRIS

WELLER H. NOYES

ROBERT S. SINCLAIR

FRANK L. SUPLEE

ROBERT CAREY, Counsel

E. MORGAN BARRADALE, Secretary

OLE SINGSTAD

Chief Engineer

25 May 49 g. A.C. Willard

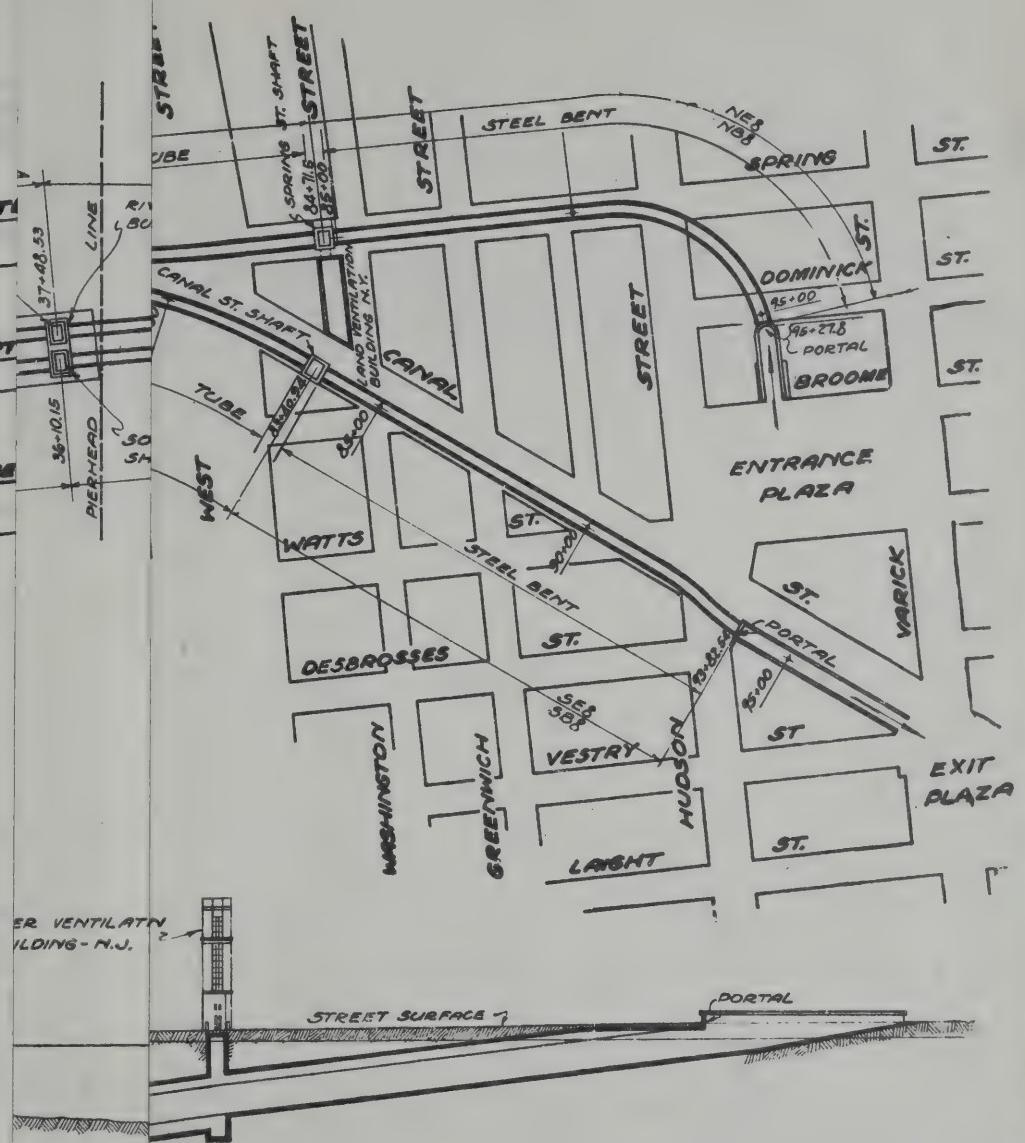
  
M. B. Brown Printing & Binding Co.,  
37-41 Chambers Street, N. Y.

## **LIST OF CONTRACT DRAWINGS**

### **Contract No. 12**

1. Plan and Profile.
2. Land Ventilation Building, New York—1st Floor Plan.
3. Land Ventilation Building, New York—2nd Floor Plan.
4. Land Ventilation Building, New York—3rd Floor Plan.
5. Land Ventilation Building, New York—4th Floor Plan.
6. Land Ventilation Building, New York—Section DD, Upper Part.
7. Land Ventilation Building, New York—Section DD, Lower Part.
8. River Ventilation Building, New York—2nd Floor Plan.
9. River Ventilation Building, New York—3rd Floor Plan.
10. River Ventilation Building, New York—4th Floor Plan.
11. River Ventilation Building, New York—Roof Plan.
12. River Ventilation Building, New York—Section BB, North Half.
13. River Ventilation Building, New York—Section BB, South Half.
14. River Ventilation Building, New Jersey—2nd Floor Plan.
15. River Ventilation Building, New Jersey—3rd Floor Plan.
16. River Ventilation Building, New Jersey—4th Floor Plan.
17. River Ventilation Building, New Jersey—Roof Plan.
18. River Ventilation Building, New Jersey—Section AA, North Half.
19. River Ventilation Building, New Jersey—Section AA, South Half.
20. Land Ventilation Building, New Jersey—1st Floor Plan.
21. Land Ventilation Building, New Jersey—2nd Floor Plan.
22. Land Ventilation Building, New Jersey—3rd Floor Plan.
23. Land Ventilation Building, New Jersey—4th Floor Plan.
24. Land Ventilation Building, New Jersey—Section DD.
25. Land Ventilation Building, New Jersey—Section FF.





ers, thus N-B-8 Fan No 1 or S-E-8 Fan No 2

### REQUIRMENTS

of three, either blower or exhaust.

light guards.

or this contract and set under another contract  
under another contract after installation of fans

work, see contract drawing No 27 incl.

" " " 8-13 incl.  
" " " 14-19 incl.  
" " " 20-25 incl.  
" " " No 6

to concrete see contract  
drawing No 7

NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION

### THE HOLLAND TUNNEL CONTRACT NO. 12 CONTRACT DRAWING NO. 1

To be furnished  
those shown or  
ot less than the  
on and the vele  
in on the plan  
tion shall be in  
required total

Holland  
Lewellen

CONSULTANTS

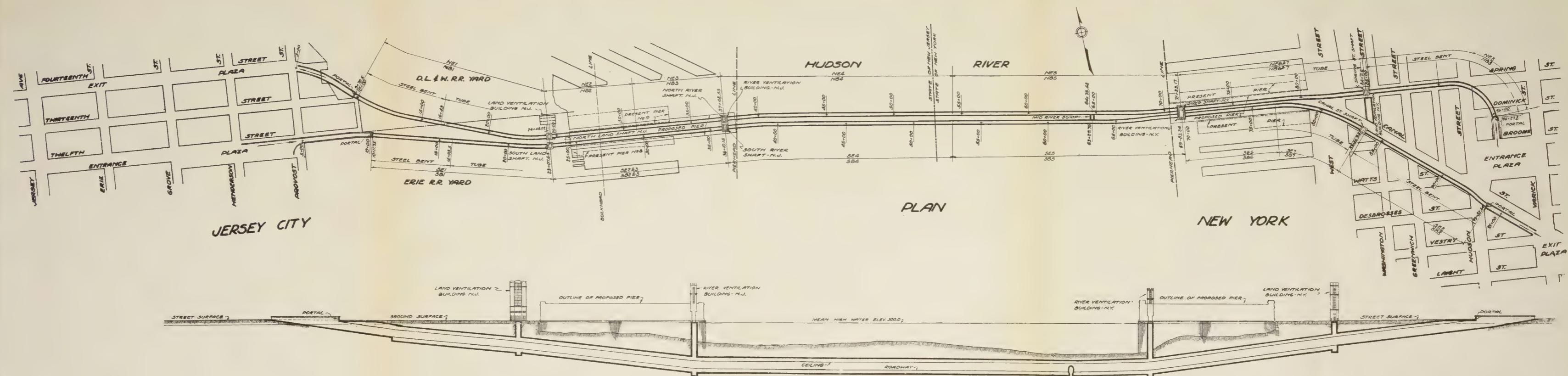
SCALE: HOR. 150  
VERT. 100-50-40-30

DATE JULY 7 1925

DRAWN BY J.W.M.  
CHECKED BY J.H.C.

*Olaf Singstad*  
CHIEF ENGINEER  
FILE NO. 1-12

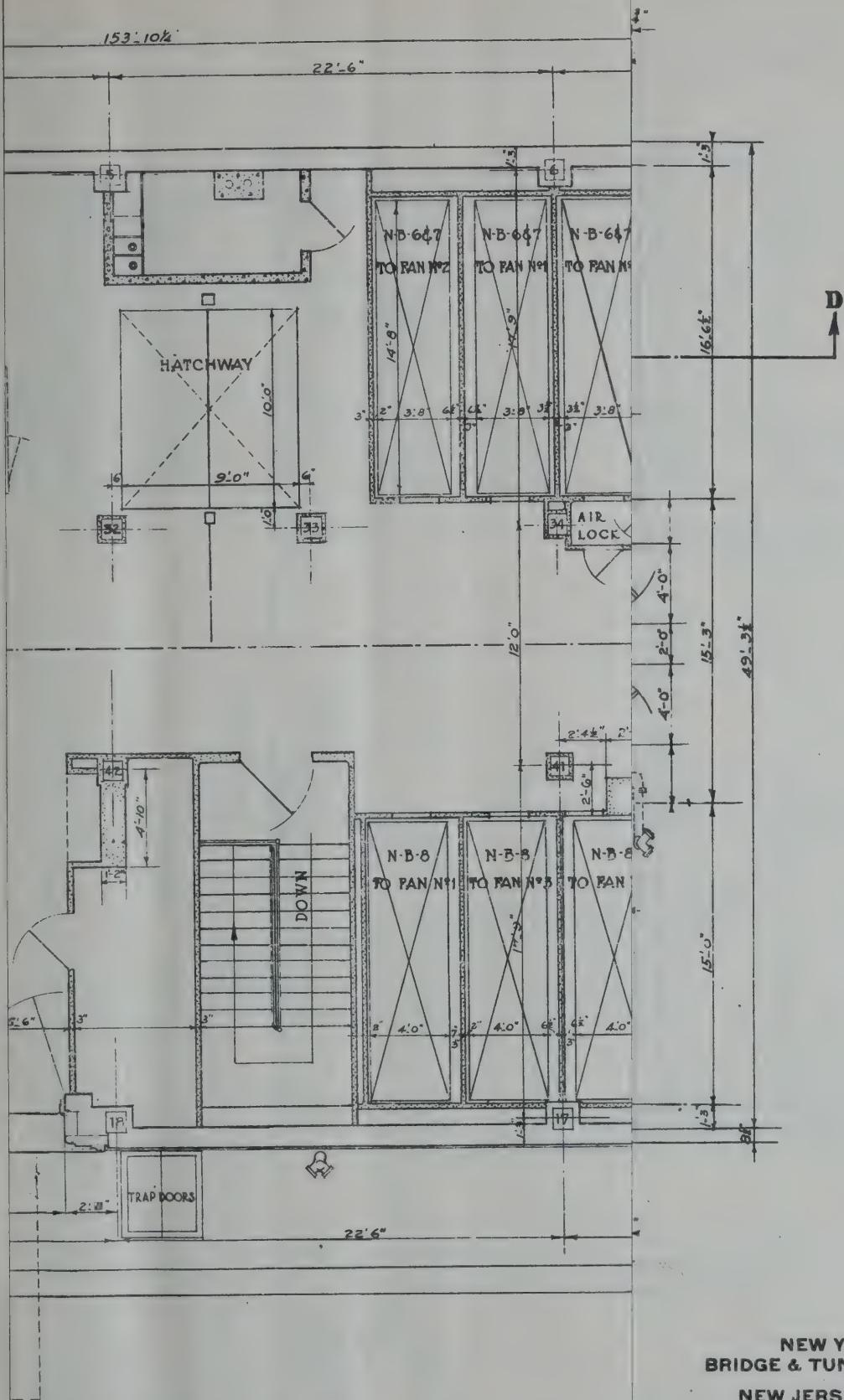
*Patrick Guille*  
ENGINEER OF DESIGNS



#### LAND VENTILATION BUILDING NEW YORK

DUCT SECTION	System	Vol. in cu ft per min.	3 ft. diam. of water	Fan No.	Floor	Dwg. No.
N.B.8	Blower	84,000	0.95	1	3	4
				2	4	3
				3	4	2
				4	4	1
				5	4	3
				6	4	2
				7	4	1
				8	4	3
				9	4	2
				10	4	1
				11	4	3
				12	4	2
				13	4	1
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				17	4	3
				18	4	2
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				35	4	3
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				37	4	1
				38	4	3
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				44	4	3
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				229	4	1
				230	4	3
				231	4	2
				232	4	1
				233	4	3
				234	4	2
		</				

SPRING STREET



R PLAN

BUILDING N.Y.

WASHINGTON

NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION  
THE HOLLAND TUNNEL  
CONTRACT No. 12  
CONTRACT DRAWING No. 2

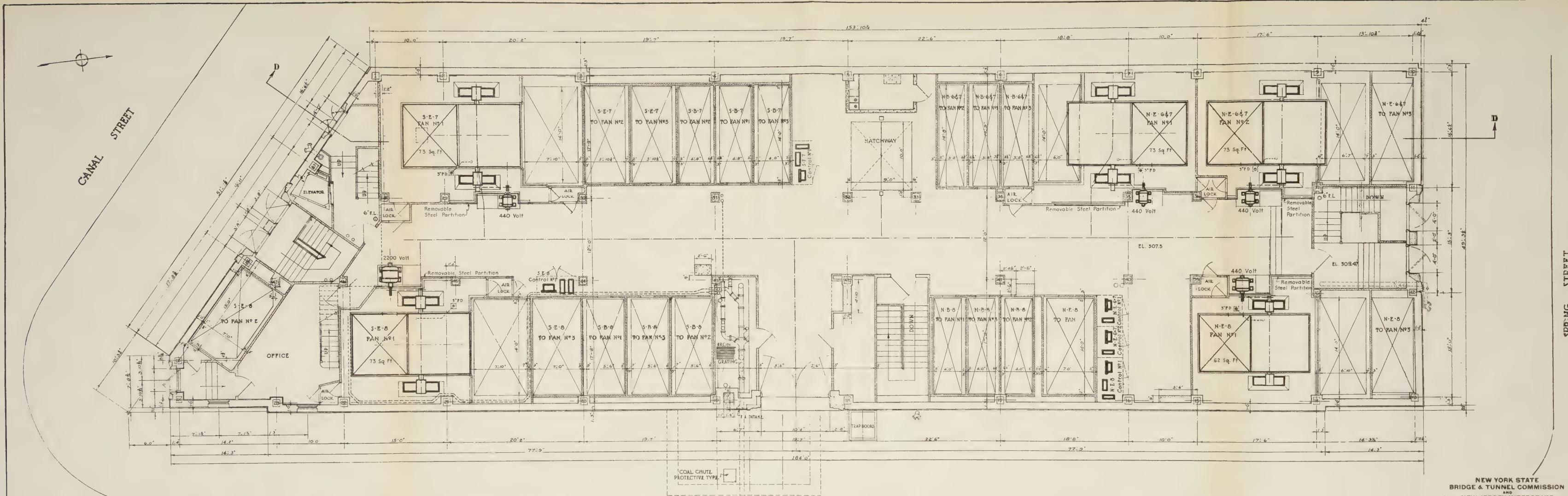
SCALE: 0 1 2 3 4 5 FEET DATE JULY 7, 1925

DRAWN BY *sum*  
CHECKED BY *Hyc*

*O. G. Ingstad*  
CHIEF ENGINEER

FILE NO. 6-12

M. B. Brown Printing & Binding Co.,  
37-41 Chambers Street, N.Y.



WASHINGTON STREET

FIRST FLOOR PLAN

LAND VENTILATION BUILDING N.Y.

*R. A. Davis*  
MECHANICAL ENGINEER  
*G. D. Bond*  
ELECTRICAL ENGINEER  
*P. J. Stillwell*  
ENGINEER OF DESIGNS

*A. G. Willard*  
*G. D. Stillwell*  
CONSULTANTS

NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION  
THE HOLLAND TUNNEL  
CONTRACT NO. 12  
CONTRACT DRAWING NO. 2

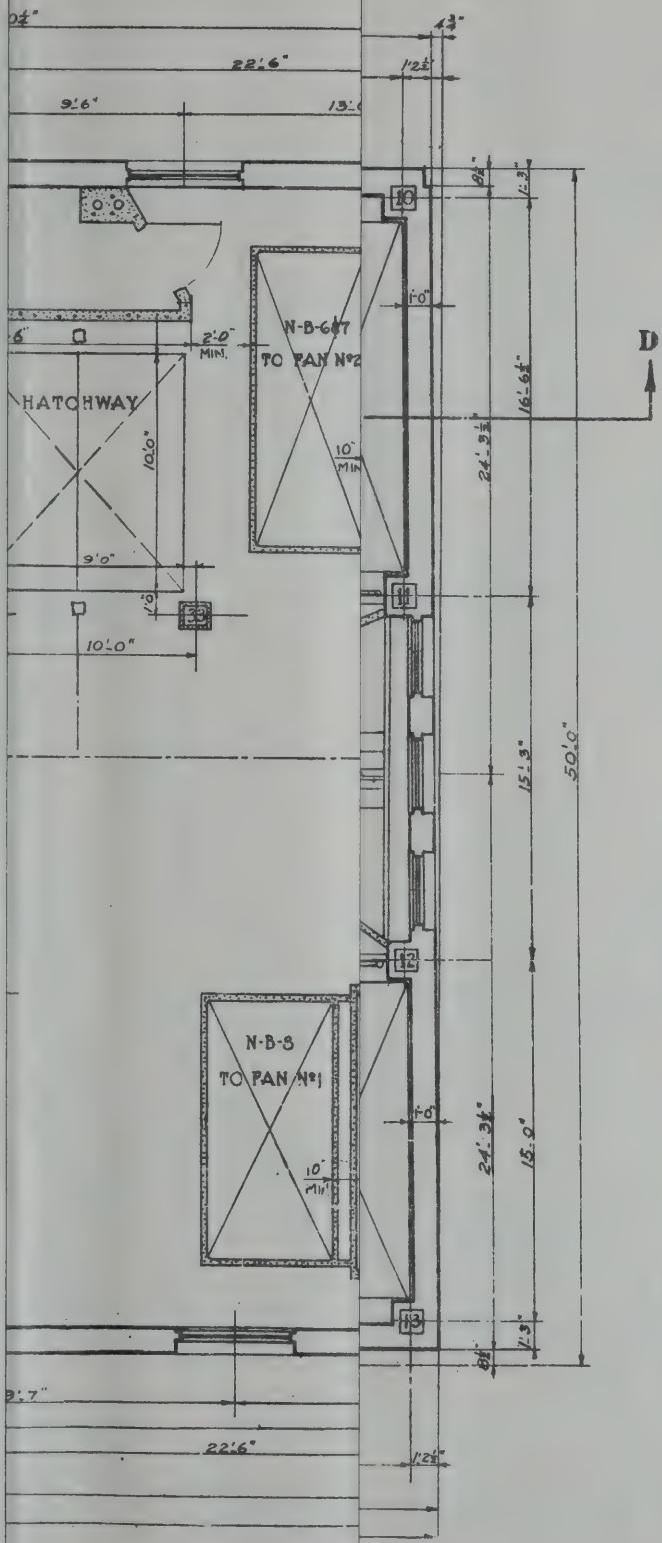
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DATE: JULY 7, 1955

DRAWN BY: *M. B. Brown*  
CHECKED BY: *J. C. Englehardt*

FILE NO. 6-12

M. B. Brown Printing & Binding Co.,  
37-41 Chambers Street, N.Y.



**NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION**

**THE HOLLAND TUNNEL  
CONTRACT No. 12  
CONTRACT DRAWING No 3**

## CONSULTANTS

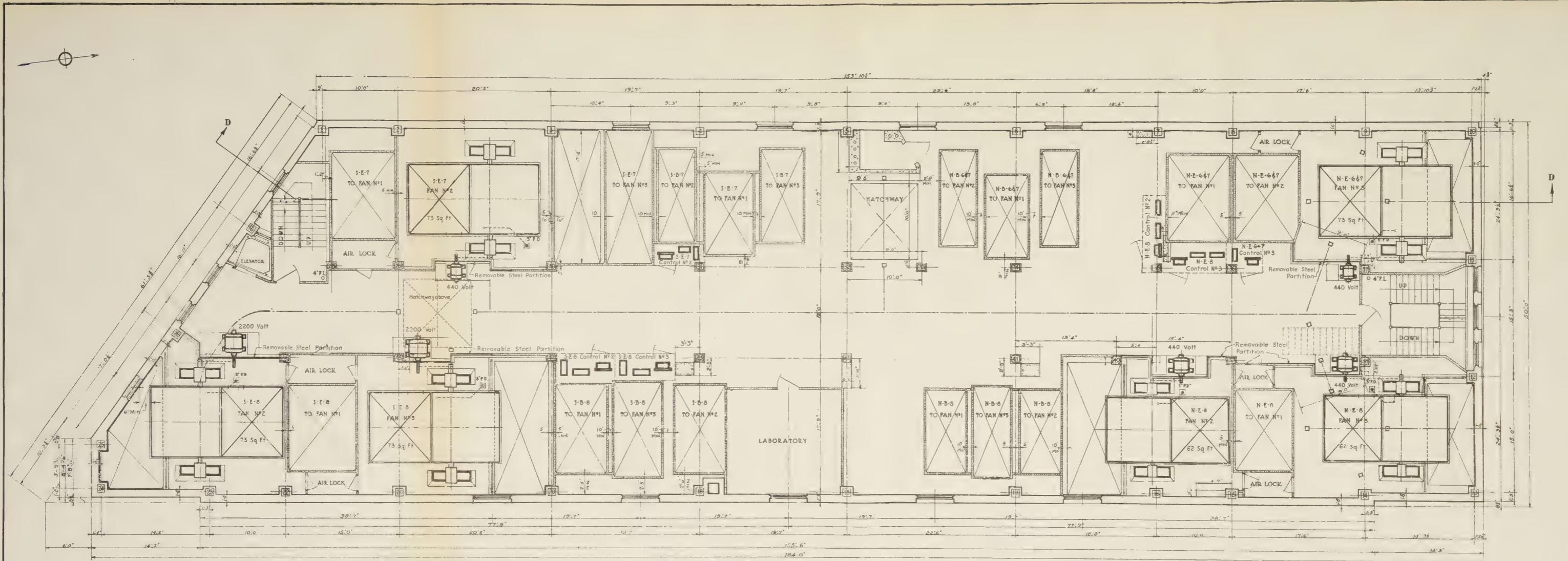
DING N.Y.

SCALE: 0 1 2 3 4 5 FEET DATE JULY 7, 1935

DRAWN BY *G. W. M.*  
CHECKED BY *R. E. G.*

Ole Singsstad  
CHIEF ENGINEER  
MAIL NO. 1-1

M. B. Brown Printing & Binding Co.,  
37-41 Chambers Street, N. Y.



SECOND FLOOR PLAN

LAND VENTILATION BUILDING N.Y.

*R. J. Van Dusen*  
R. J. Van Dusen  
MECHANICAL ENGINEER  
G. R. Held  
ELECTRICAL ENGINEER  
ENGINEER OF DESIGNS

*A. C. Willard*  
*H. B. Stillwell*  
CONSULTANTS

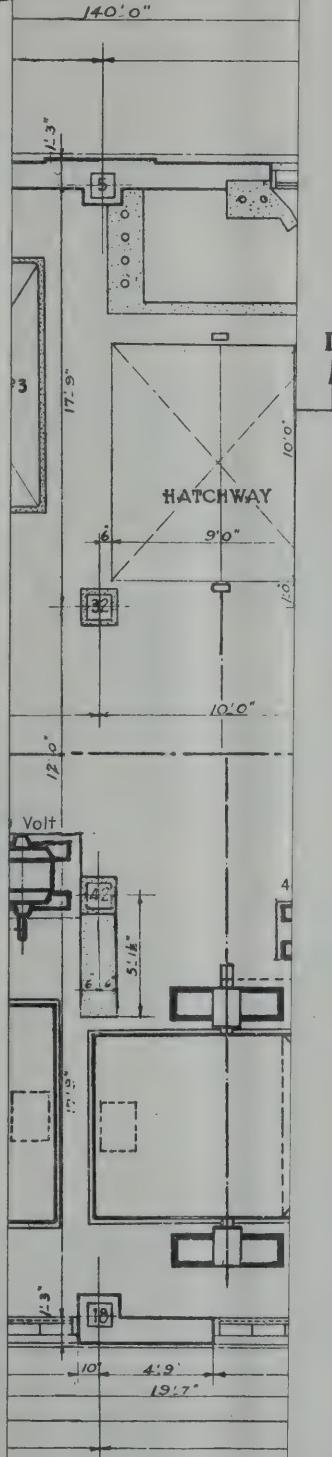
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BRIDGE & TUNNEL COMMISSION  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION  
THE HOLLAND TUNNEL  
CONTRACT NO. 12  
CONTRACT DRAWING NO. 3

SCALE: 1/8 INCH = 10 FEET

DATE: JULY 7, 1938

DRAWN BY *G. M. Gumm*  
CHECKED BY *G. M. Gumm*

M. B. Brown Printing & Binding Co.,  
37-41 Chambers Street, N. Y.



PLAN  
BUILDING

*Ralph*  
Ralph  
ENGINEER O.

land.  
wall. }  
CONSULTANTS

NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION

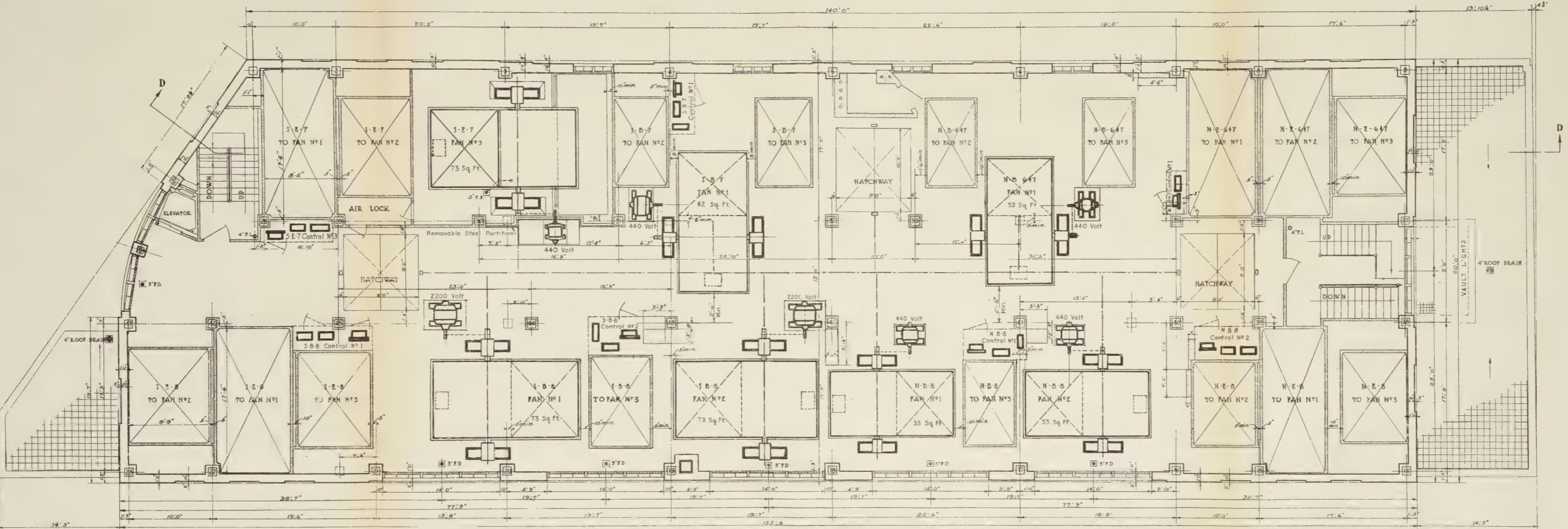
**THE HOLLAND TUNNEL**  
CONTRACT No. 12.  
CONTRACT DRAWING No. 4

SCALE: 0 1 2 3 4 5 FEET DATE: JULY 1, 1928

DRAWN BY *Summ.*  
CHECKED BY *H.G.C.*

*Ole Singstad*  
CHIEF ENGINEER

FILE NO. 1-12



THIRD FLOOR PLAN

LAND VENTILATION BUILDING N.Y.

Ralph Smalle  
Mechanical Engineer  
G. M. Ordell  
Electrical Engineer  
Engineer of Designs

A. C. Willard  
W. B. Stillwell  
Consultants

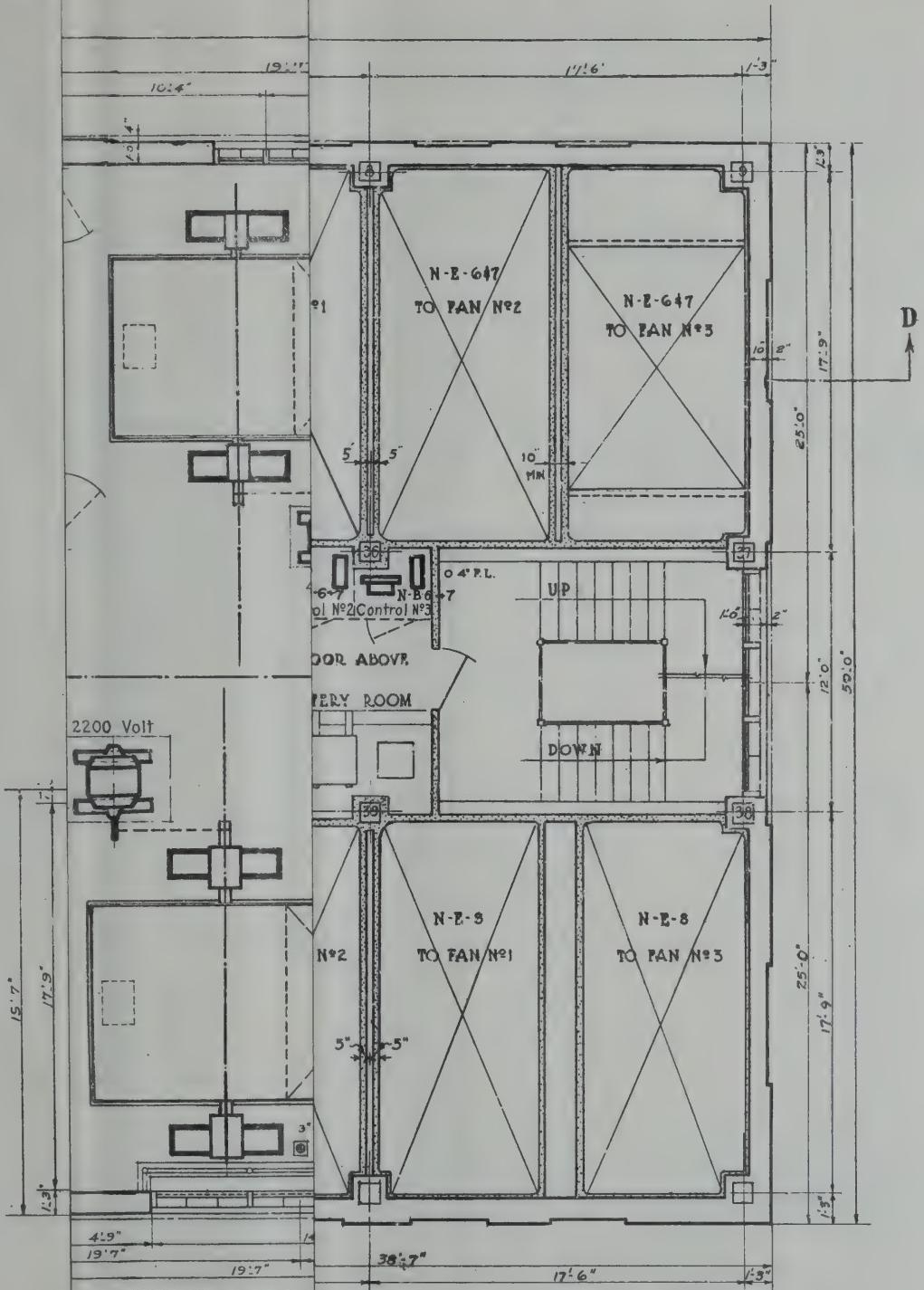
NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION  
THE HOLLAND TUNNEL  
CONTRACT NO. 12  
CONTRACT DRAWING NO. 4

SCALE 0 1 2 3 4 FEET  
DATE JULY 9, 1926

DRAWN BY GUTH,  
CHECKED BY GUTH  
FILE NO. 1-12

O. J. Grindall  
CHIEF ENGINEER

M. B. Brown Printing & Binding Co.  
37-41 Chambers Street, N.Y.



NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION

**THE HOLLAND TUNNEL  
CONTRACT NO 12  
CONTRACT DRAWING NO 5**

PL

land

CONSULTANTS

*Taylor*  
ENGINEER

L

SCALE 0 1 2 3 4 5 FEET

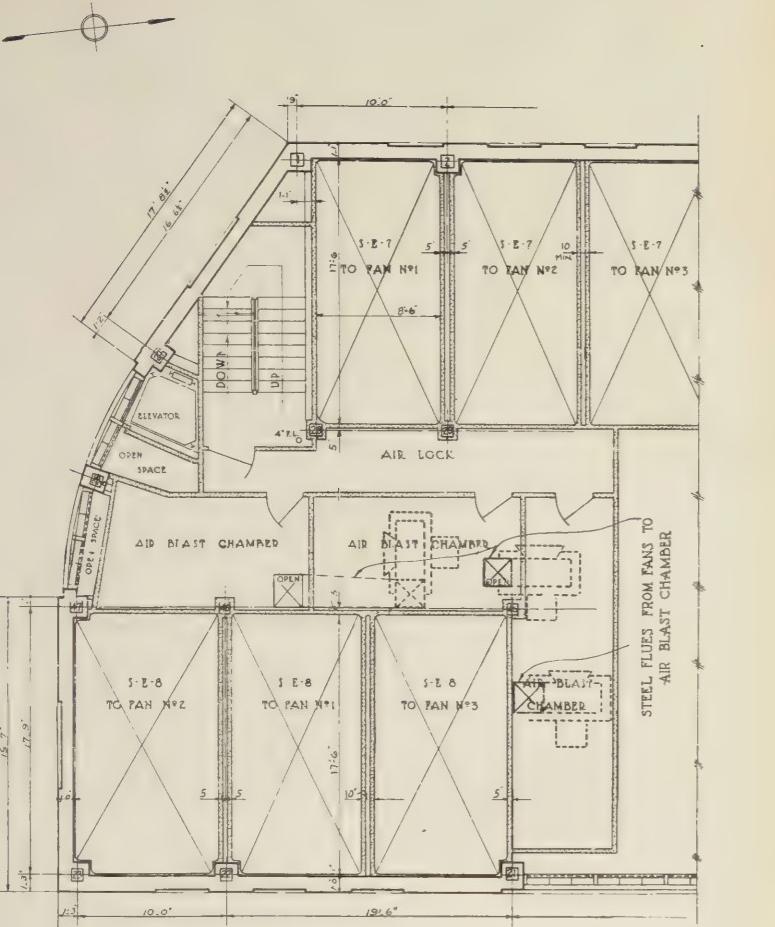
DATE JULY 9, 1926

DRAWN BY *John M.*  
CHECKED BY *H.H.*

M. B. Brown Printing & Binding Co.,  
37-41 Chambers Street, N. Y.

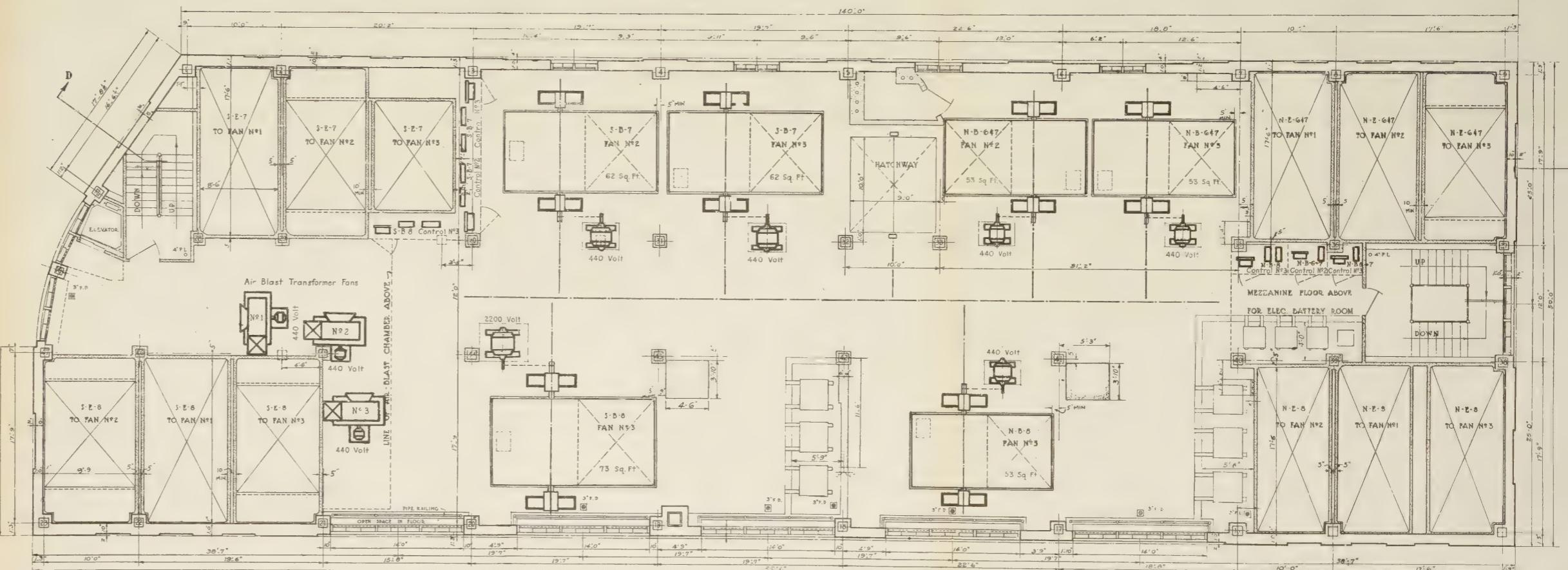
*Ole Singstad*  
CHIEF ENGINEER

FILE NO 1-12



PLAN SHOWING AIR-BLAST CHAMBER BETWEEN 4<sup>th</sup> & 5<sup>th</sup> FLOORS

*A. L. Willard*  
Mechanical Engineer  
*J. B. Stoddard*  
Electrical Engineer  
*Peter Smith*  
Engineer of Designs



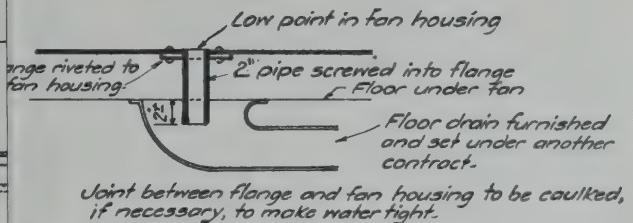
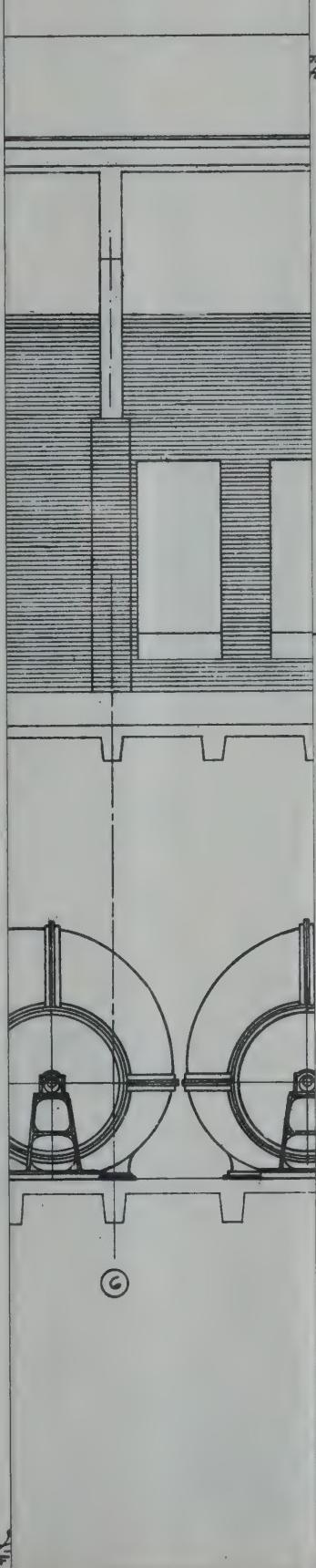
FOURTH FLOOR PLAN

LAND VENTILATION BUILDING N.Y.

*A. L. Willard*  
*J. B. Stoddard*  
CONSULTANTS

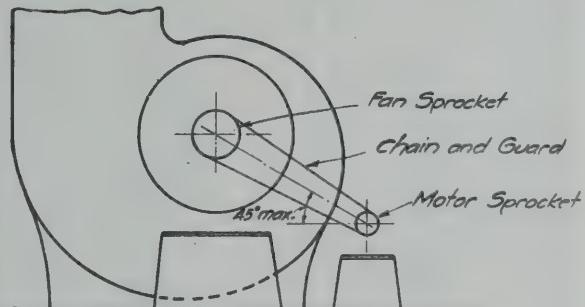
NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION  
THE HOLLAND TUNNEL  
CONTRACT NO. 12  
CONTRACT DRAWING NO. 3

SCALE 1/8 INCHES TO THE FOOT  
DATE JULY 7, 1918  
DRAWN BY *M. B. Brown*  
CHECKED BY *N. G. Moore*  
DRAFTED BY *O. G. Ingstad*  
CIVIL ENGINEERS  
FILE NO. 1-12

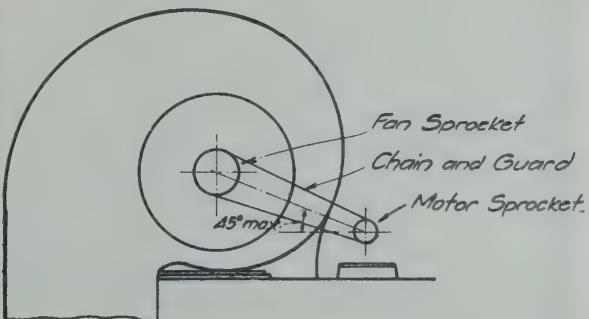


### DETAIL OF DRAIN AT BOTTOM OF EXHAUST FANS

SCALE: 0 3 6 9 12 INCHES



TYPICAL DRIVE FOR EXHAUST FANS



TYPICAL DRIVE FOR BLOWER FANS

NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION

**THE HOLLAND TUNNEL**  
CONTRACT No. 12  
CONTRACT DRAWING No. 6

CONSULTANTS

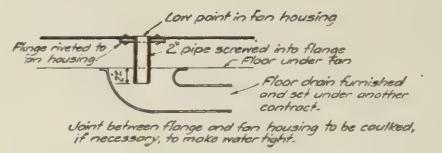
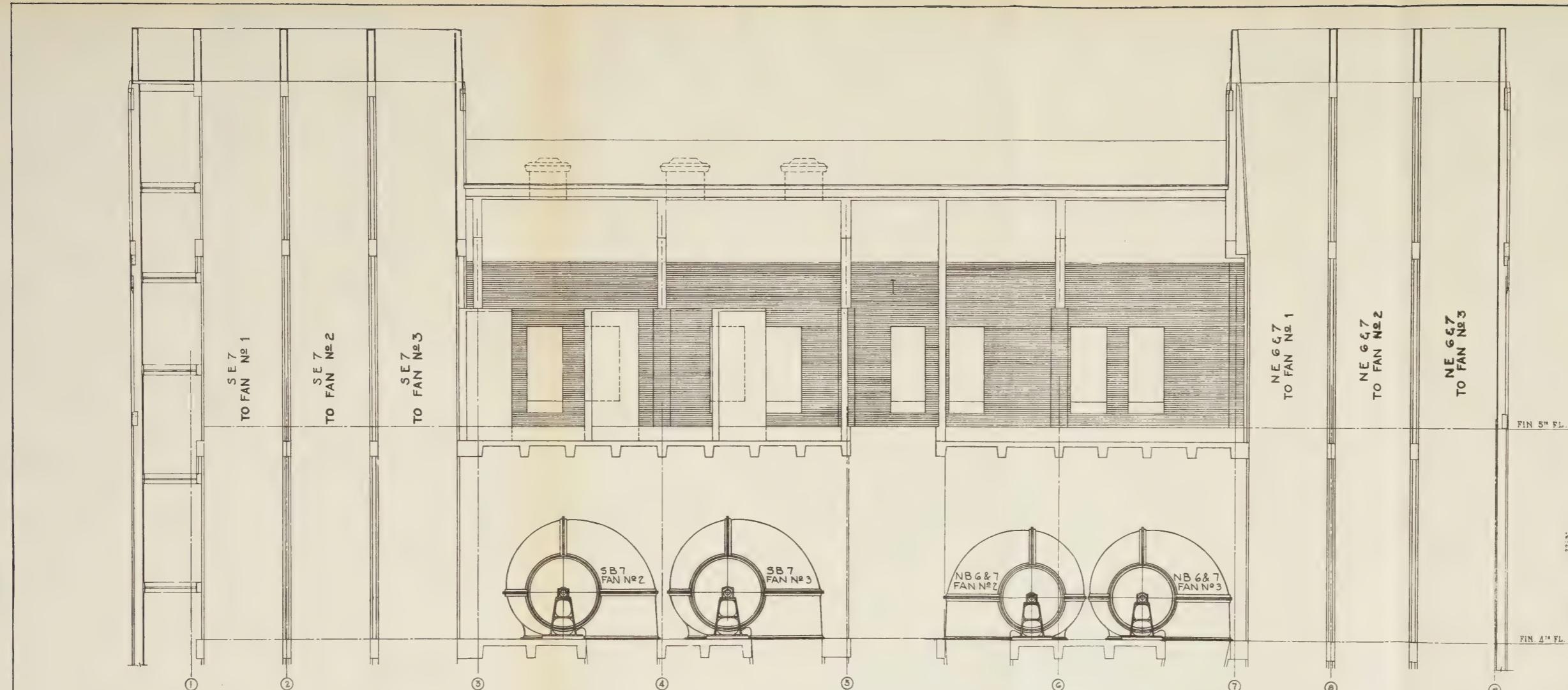
SCALE: 0 1 2 3 4 5 FEET DATE JULY 7, 1925

DRAWN BY *B.M.B.*  
CHECKED BY *J.H.C.*

*Ole Singstad*  
CHIEF ENGINEER

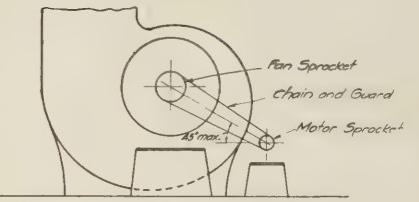
FILE NO. 1-1-12

*P. A. C.*  
ENGINEER OF

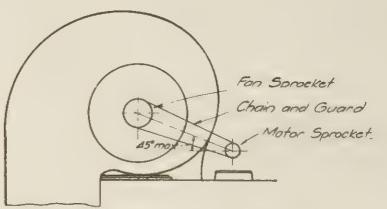


DETAIL OF DRAIN AT BOTTOM  
OF EXHAUST FANS

SCALE: 0 3 6 9 12 INCHES



TYPICAL DRIVE FOR EXHAUST FANS



TYPICAL DRIVE FOR BLOWER FANS

NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION

THE HOLLAND TUNNEL  
CONTRACT NO. 12  
CONTRACT DRAWING NO. 6

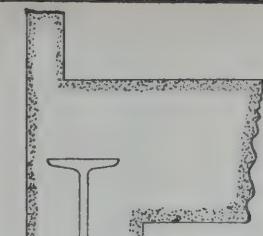
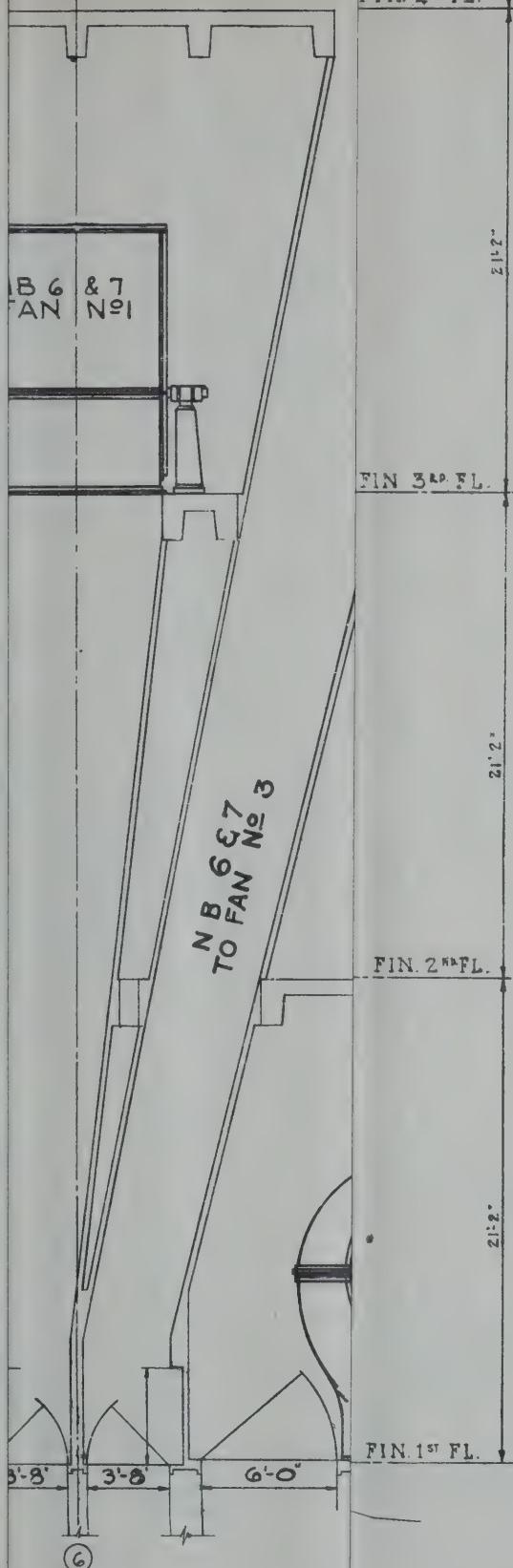
R.C. Willard  
G.B. Stilwell  
CONSULTANTS

SCALE: 0 1 2 3 4 5 FEET DATE JULY 1 1943

DRAWN BY G.W.M.  
CHECKED BY E.G.C.

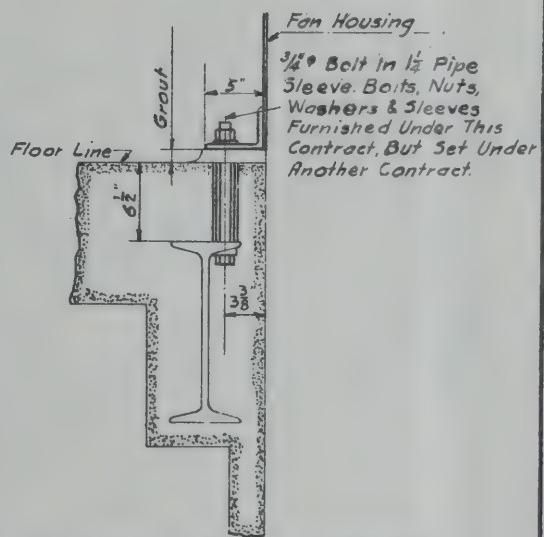
POLAROID  
FILE NO. 147

*A. Davis*  
MECHANICAL ENGINEER  
*O. W. Dodd*  
ELECTRICAL ENGINEER  
*Walter Smoller*  
ENGINEER OF DESIGNS



Metal Flue From Exhaust Fan Outlet

**METHOD OF ATTACHING METAL FLUE AT EXHAUST FAN OUTLET TO CEILING**



**METHOD OF ANCHORING FAN HOUSING TO FLOOR**

SCALE: 0 3 6 9

NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION

**THE HOLLAND TUNNEL**  
CONTRACT No.12  
CONTRACT DRAWING No.7

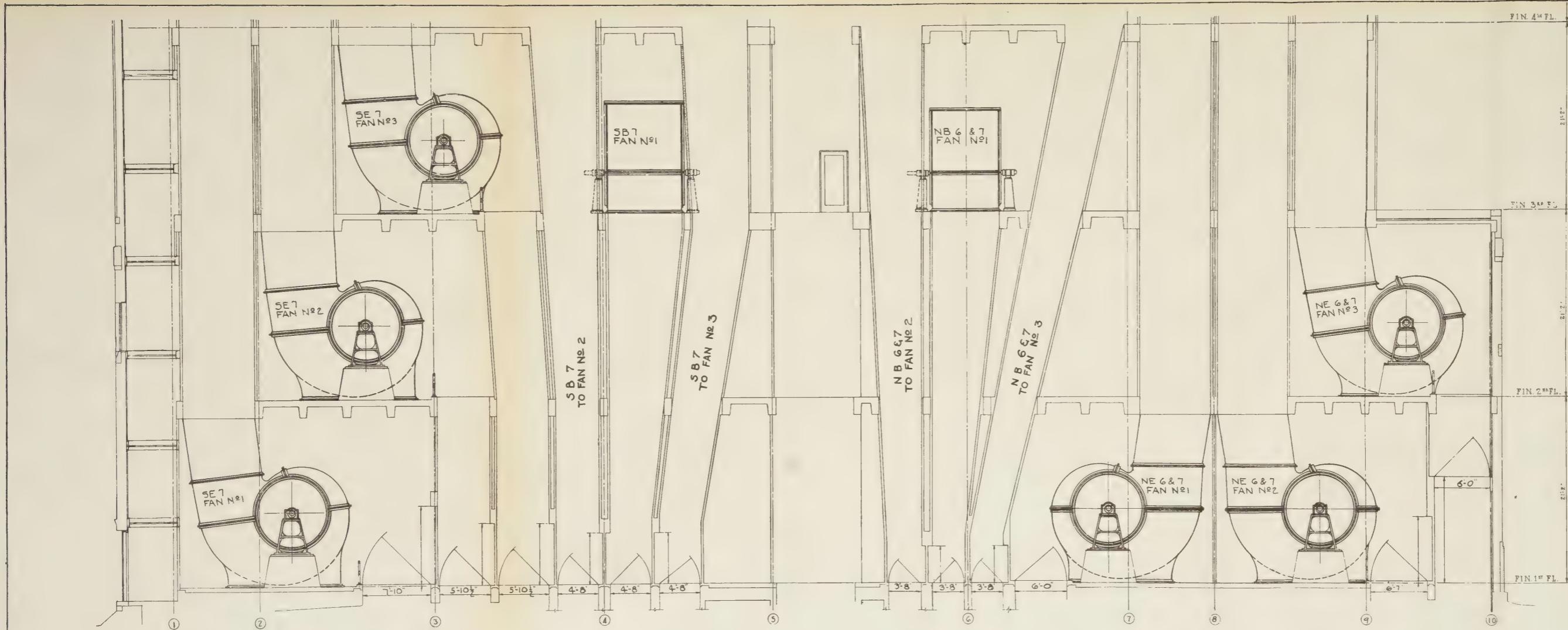
CONSULTANTS  
SCALE: 0 1 2 3 4 5 FEET DATE JULY 7 1925

DRAWN BY *B.M.B.*  
CHECKED BY *J.H.C.*

*O. Singstar*  
CHIEF ENGINEER

FILE NO. 1-17

*Holland Tunnel Engine*



SECTION D-D LOWER PART

LAND VENTILATION BUILDING N.Y.

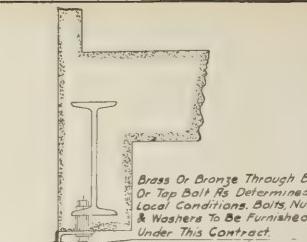
*A. C. Willard*  
Mechanical Engineer  
*J. W. Sodt*  
Electrical Engineer  
*H. B. Stetson*  
Engineer of Designs

*A. C. Willard*  
Consultants  
*H. B. Stetson*

SCALE: 0 1 2 3 4 5 FEET DATE JULY 7 1919

DRAWN BY *John M. Dunn*  
CHECKED BY *J. H. C.*

M. B. Brown Printing & Binding Co.  
37-41 Chambers Street, N.Y.



METHOD OF ATTACHING  
METAL FLUE AT EXHAUST  
FAN OUTLET TO CEILING



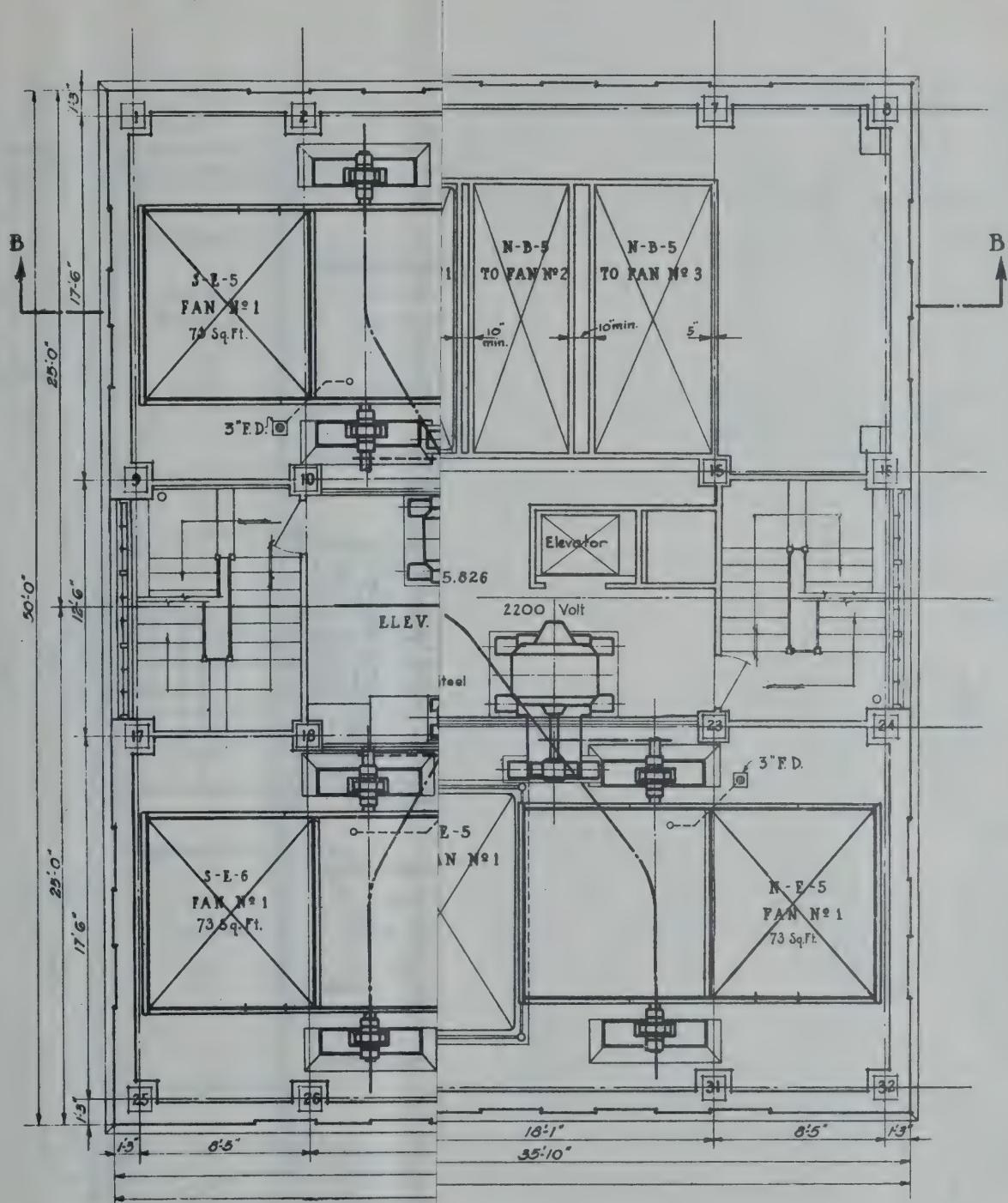
METHOD OF ANCHORING  
FAN HOUSING TO FLOOR

SCALE: 0 3 6 9

NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION

THE HOLLAND TUNNEL  
CONTRACT NO. 12  
CONTRACT DRAWING NO. 7

FILE NO. 1-17

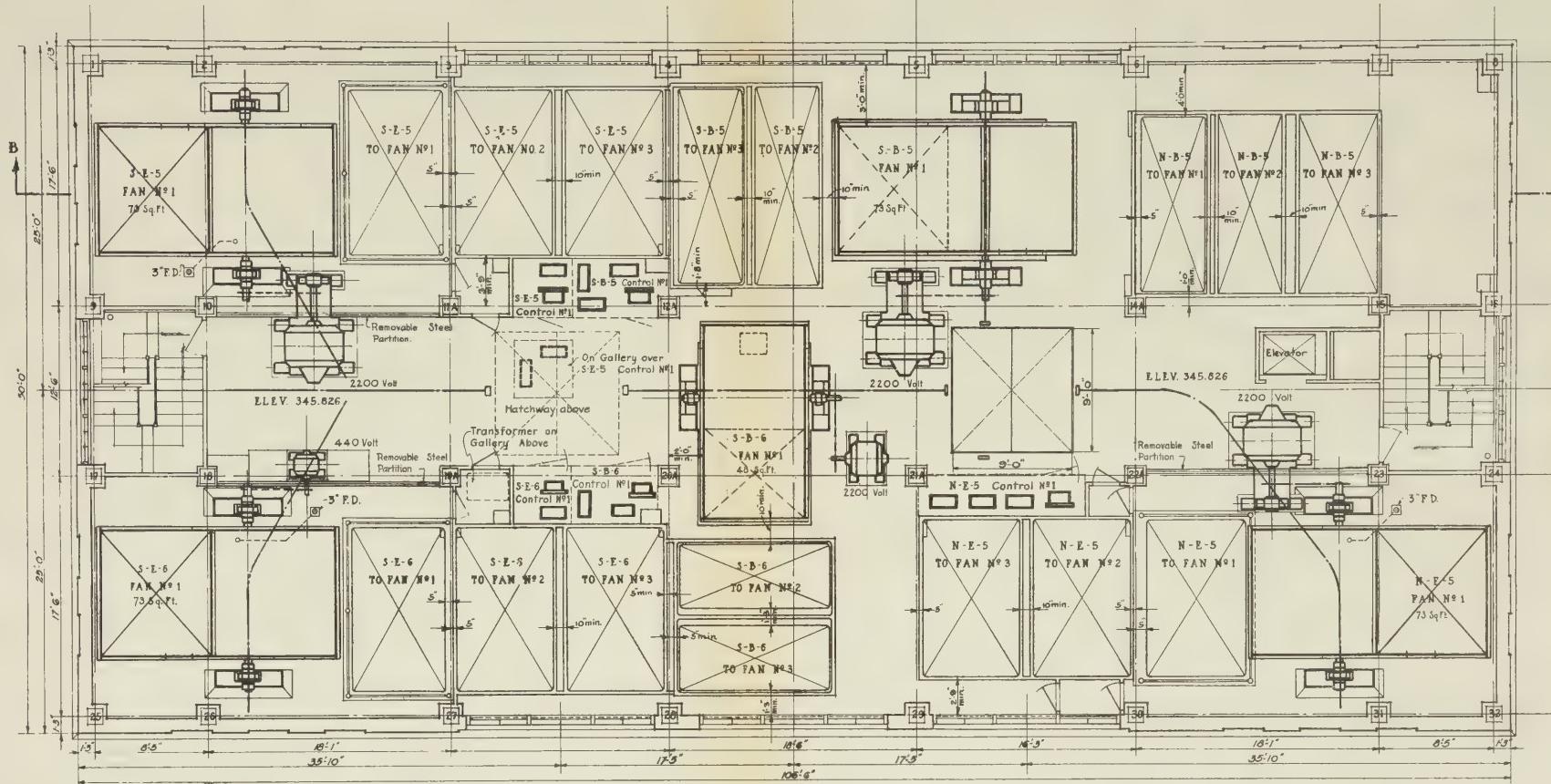


NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION  
  
THE HOLLAND TUNNEL  
CONTRACT NO. 12  
CONTRACT DRAWING No. 8

*R. Edwards*  
MECHANICAL ENGINEER  
J. N. Dodd  
ELECTRICAL ENGINEER  
*Ralph Smith*  
ENGINEER OF DESIGNS

0 1 2 3 4 5 FEET  
SCALE: DATE JULY 7, 1925  
DRAWN BY KMC CHECKED BY G.W.M.  
*Ole Singstad* CHIEF ENGINEER  
FILE NO. 112

M. B. Brown Printing & Binding Co.,  
37-41 Chambers Street, N. Y.



SECOND FLOOR PLAN

RIVER VENTILATION BUILDING N.Y.

*A.C. Willard  
Lee B. Stillwell*  
CONSULTANTS

NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION  
THE HOLLAND TUNNEL  
CONTRACT NO. 12  
CONTRACT DRAWING NO. 8

SCALE: 0 1 2 3 4 5 FEET DATE JULY 7, 1928

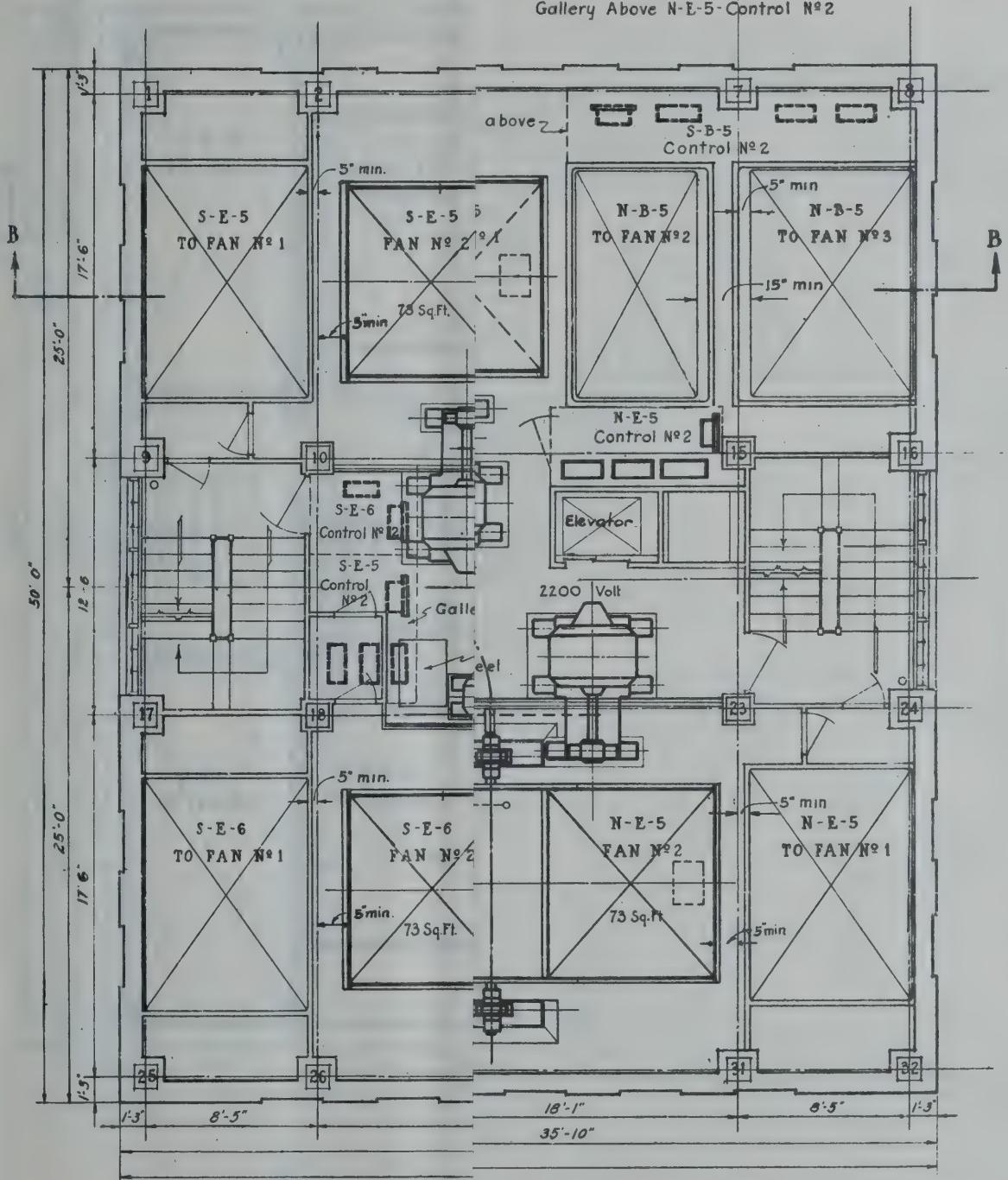
*Olof Ingstad*  
CHIEF ENGINEER

DRAWN BY *J.W.C.*  
CHECKED BY *B.W.M.*

*Levitt*  
MECHANICAL  
ENGINEER

*H. N. Gold*  
ELECTRICAL  
ENGINEER

*Robert Smith*  
ENGINEER OF DESIGNS



NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION

BALTIMORE  
THE HOLLAND TUNNEL  
CONTRACT NO. 12  
CONTRACT DRAWING NO. 9

*Alanson*

MECHANICAL ENGINEER

G. N. Duley

ELECTRICAL ENGINEER

*Peter Smith*  
ENGINEER OF DESIGNS

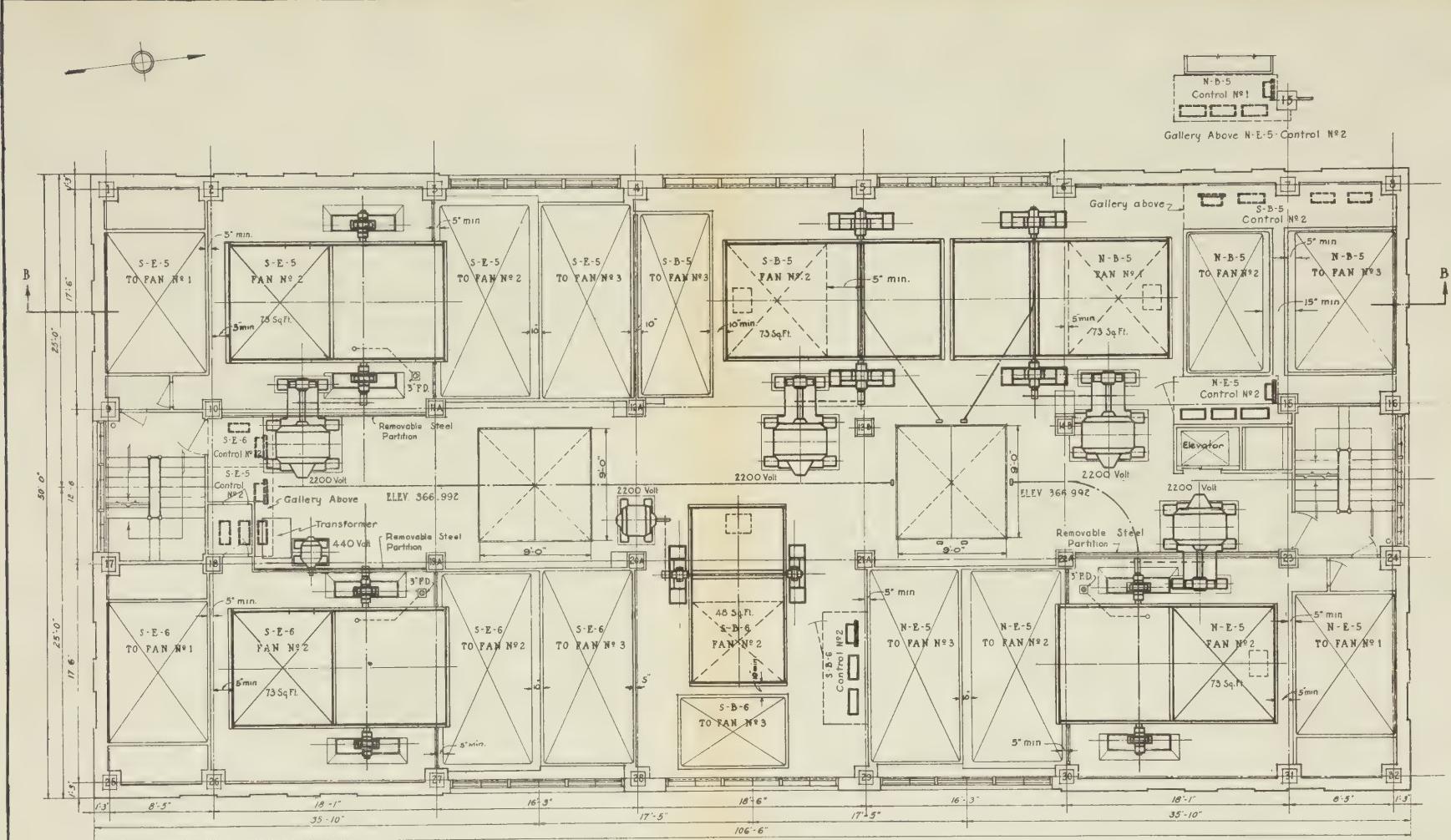
SCALE: 0 1 2 3 4 5 FEET

DATE: JULY 7, 1925

DRAWN BY *H.C.*  
CHECKED BY *T.W.M.*

*Ole Lingstad*  
CHIEF ENGINEER

FILE NO. I-12



THIRD FLOOR PLAN

A. C. Willard      } CONSULTANT  
E. B. Stillwell.

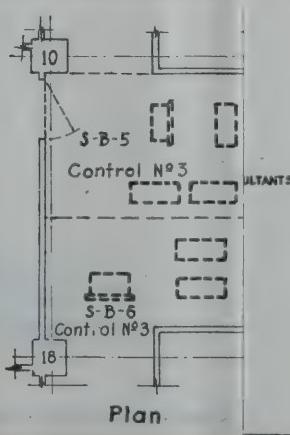
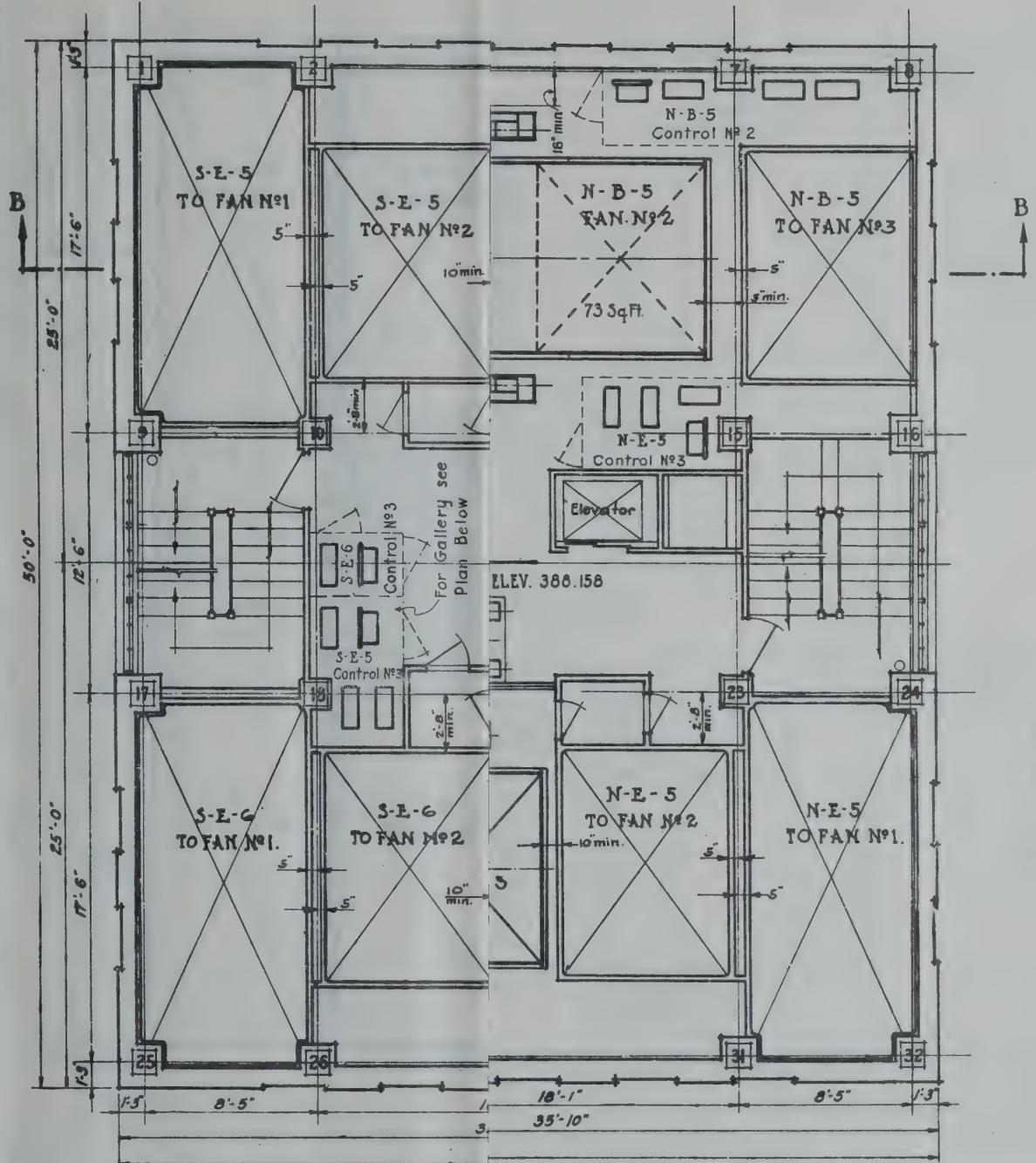
NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION

**THE HOLLAND TUNNEL**  
CONTRACT No. 12  
CONTRACT DRAWING No. 5

## RIVER VENTILATION BUILDING N.Y.

*R. J. Smillie*  
ENGINEER OF DESIGNS  
Mechanical Engineer  
9. N. Duke  
Electrical Engineer

SCALE 1 2 3 4 5 FEET DATE JULY 7, 1925  
DRAWN BY M.C. Ole Lingstad  
CHECKED BY Brown CHIEF ENGINEER FILE NO. 1-12  
M. B. Brown Printing & Binding Co.



NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION  
  
THE HOLLAND TUNNEL  
CONTRACT NO. 12  
CONTRACT DRAWING NO. 10

SCALE: 0 1 2 3 4 5 FEET

DATE JULY 7, 1925

DRAWN BY *J.W.C.*  
CHECKED BY *J.W.C.*

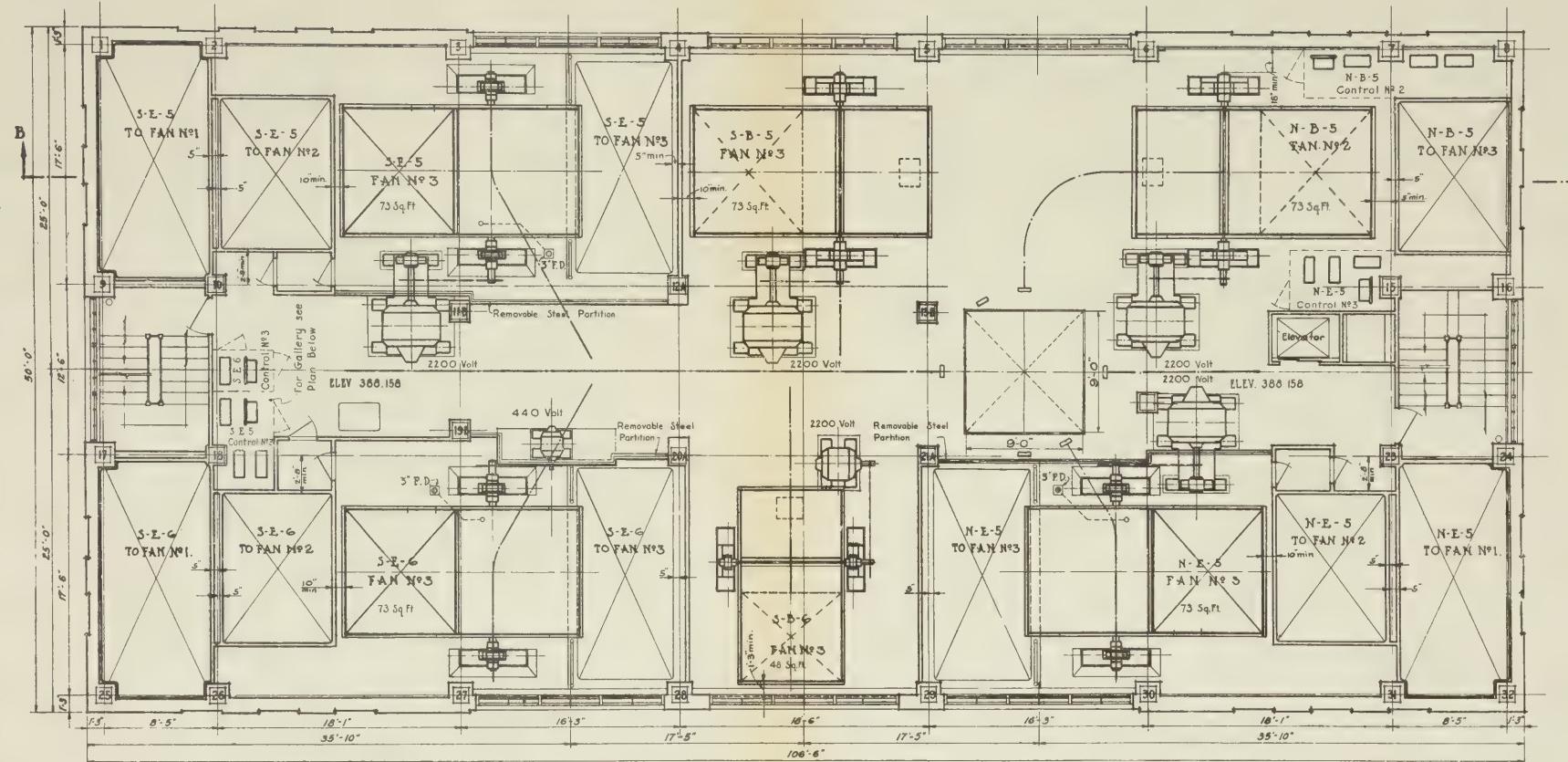
*Ole Singstad*  
CHIEF ENGINEER

FILE NO. 1-12

*Adams*  
MECHANICAL ENGINEER

*G.N. Gould*  
ELECTRICAL ENGINEER

*Peter Smith*  
CHIEF OF DESIGNS



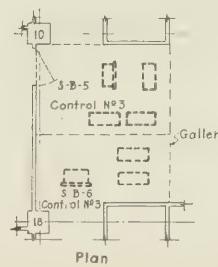
FOURTH FLOOR PLAN

RIVER VENTILATION BUILDING N.Y.

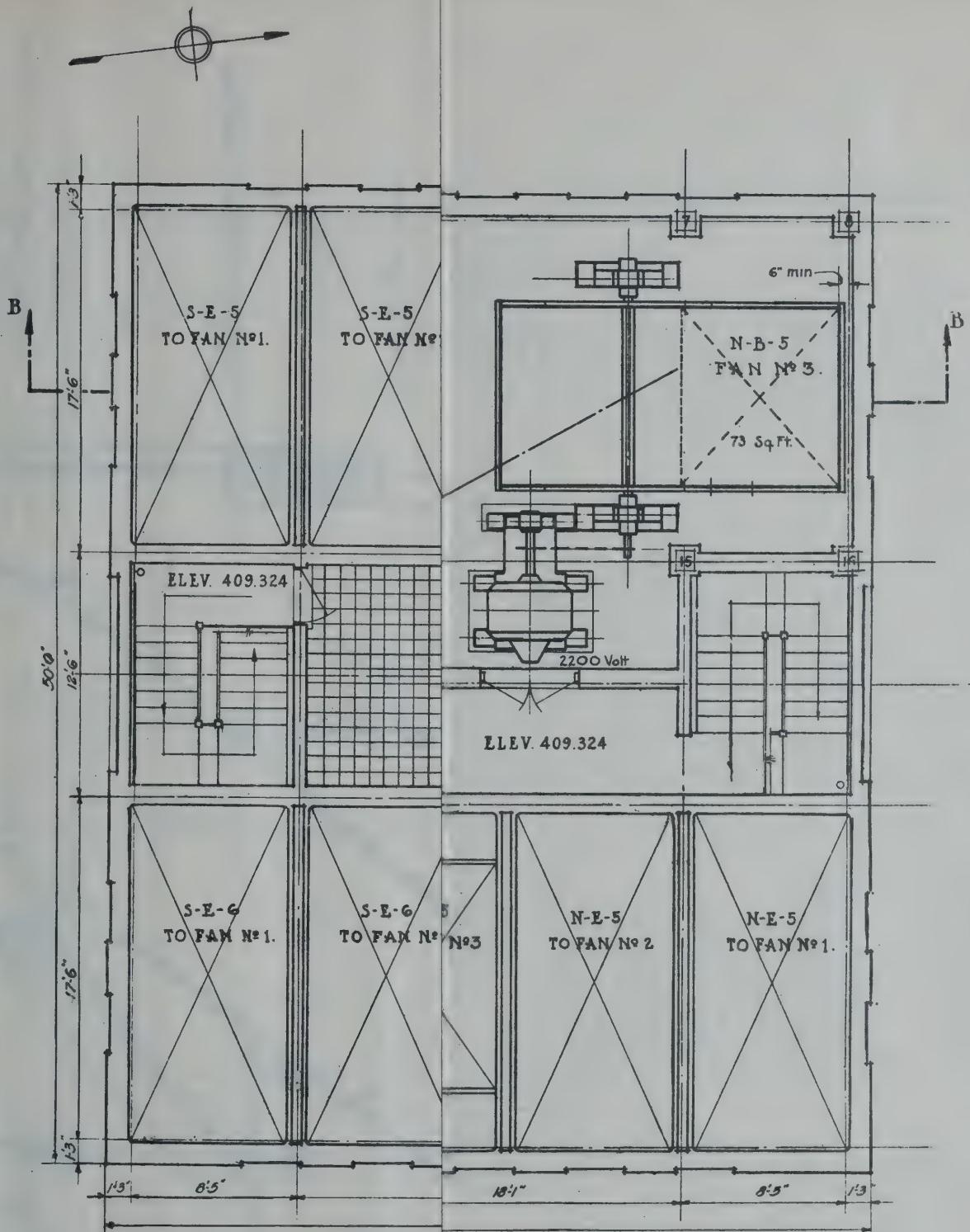
*A.C. Willard  
L.B. Stillwell*  
CONSULTANTS

NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION  
THE HOLLAND TUNNEL  
CONTRACT NO. 12  
CONTRACT DRAWING NO. 10

*W. Adams*  
MECHANICAL ENGINEER  
*J. N. Gould*  
ELECTRICAL ENGINEER  
*Frederick J. Smith*  
SUPERVISOR OF DESIGNS



SCALE: 0 1 2 3 4 FEET  
DATE: JULY 7, 1925  
FILE NO. 1-12  
DRAWN BY *Hyc*  
CHECKED BY *Adams*  
*Ole Gumpstad*  
SUPER ENGINEER  
M. B. Brown Printing & Binding  
37-41 Chambers Street, N.Y.



NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION  
THE HOLLAND TUNNEL  
CONTRACT No.12  
CONTRACT DRAWING No.11

CONSULTANTS

*O. Pearson*  
MECHANICAL ENGINEER  
J. N. Oddo  
ELECTRICAL ENGINEER

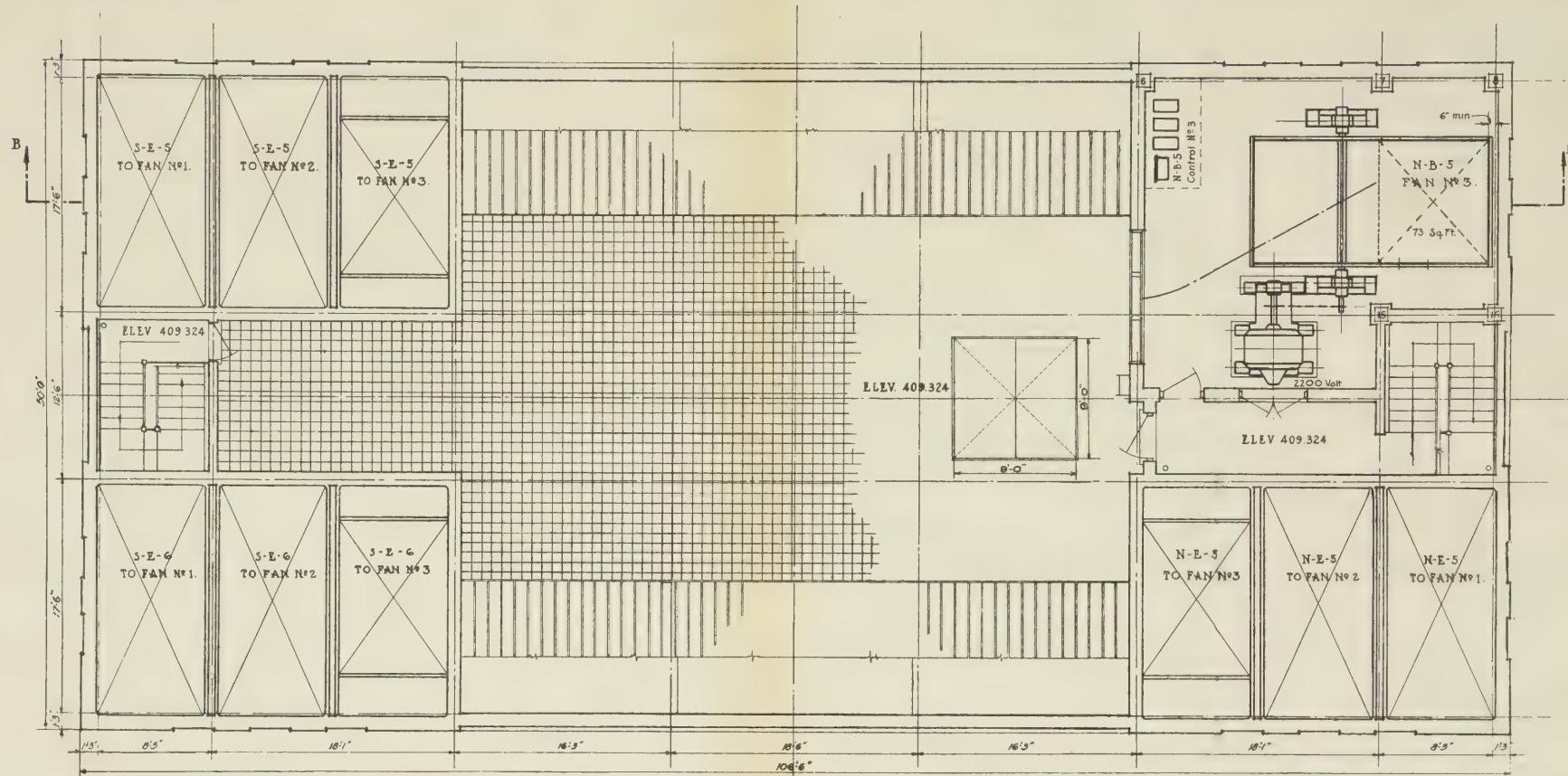
*P. J. Smith*  
ENGINEER OF DESIGNS

SCALE: 0 1 2 3 4 5 FEET DATE JULY 7, 1928

DRAWN BY *H. C. C.*  
CHECKED BY *B. W. M.*

*O. L. Livingston*  
CHIEF ENGINEER  
FILE NO. 1-12

M. B. Brown Printing & Binding Co.  
37-41 Chambers Street, N. Y.



ROOF PLAN

*A.C. Willard  
L.B. Stillwell*  
CONSULTANTS

NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION  
THE HOLLAND TUNNEL  
CONTRACT NO. 12  
CONTRACT DRAWING NO. II

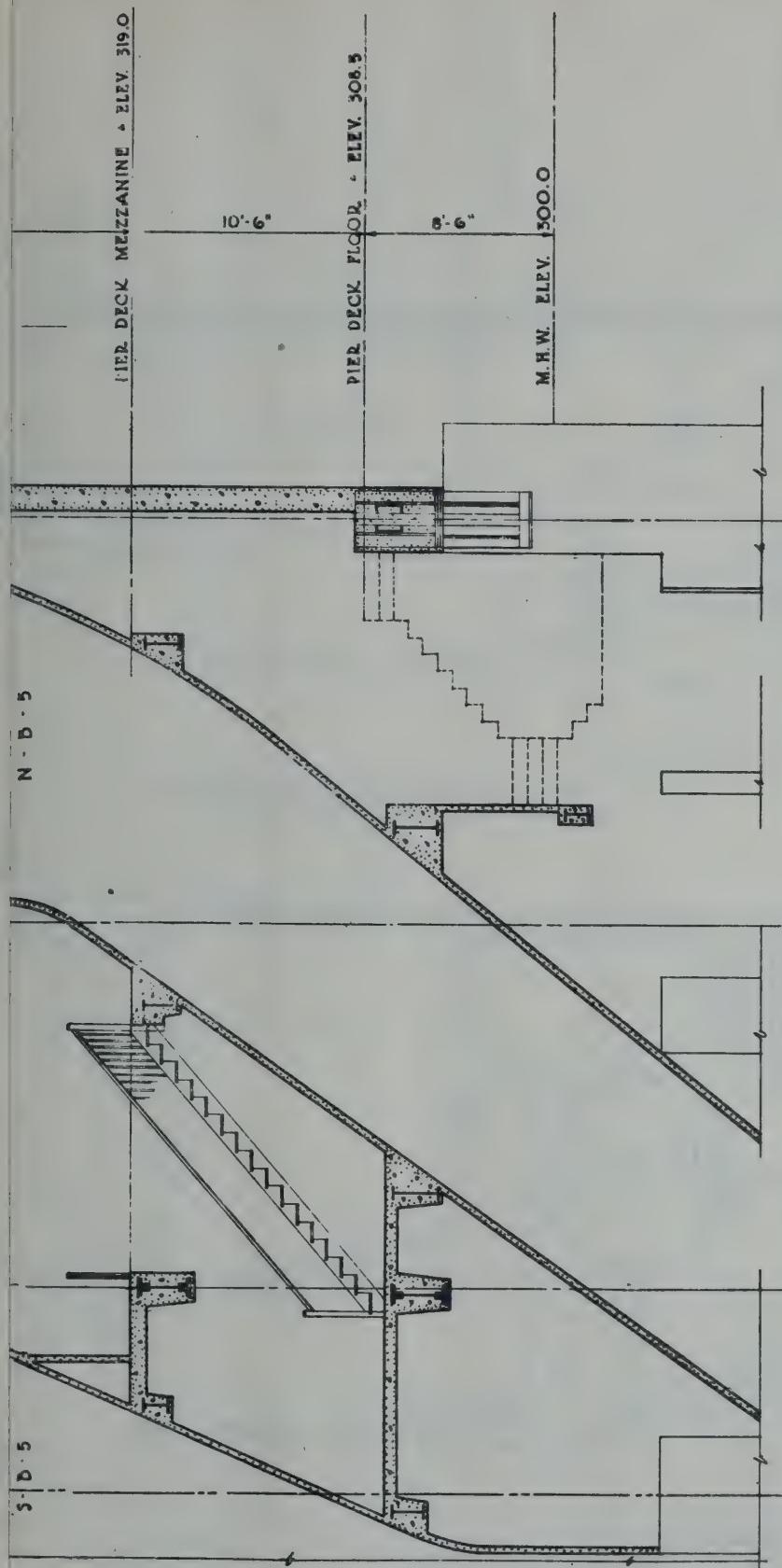
SCALE: 0 1 2 3 4 5 FEET DATE JULY 7 1953

DRAWN BY *R.P.C.*  
CHECKED BY *B.L.M.*

*Ole Ginstrom*  
CHIEF ENGINEER

FILE NO. 1-12

*G. L. Faro*  
MECHANICAL  
ENGINEER  
*J. N. Ondrej*  
ELECTRICAL  
ENGINEER  
ENGINEER OF DESIGNS



NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION

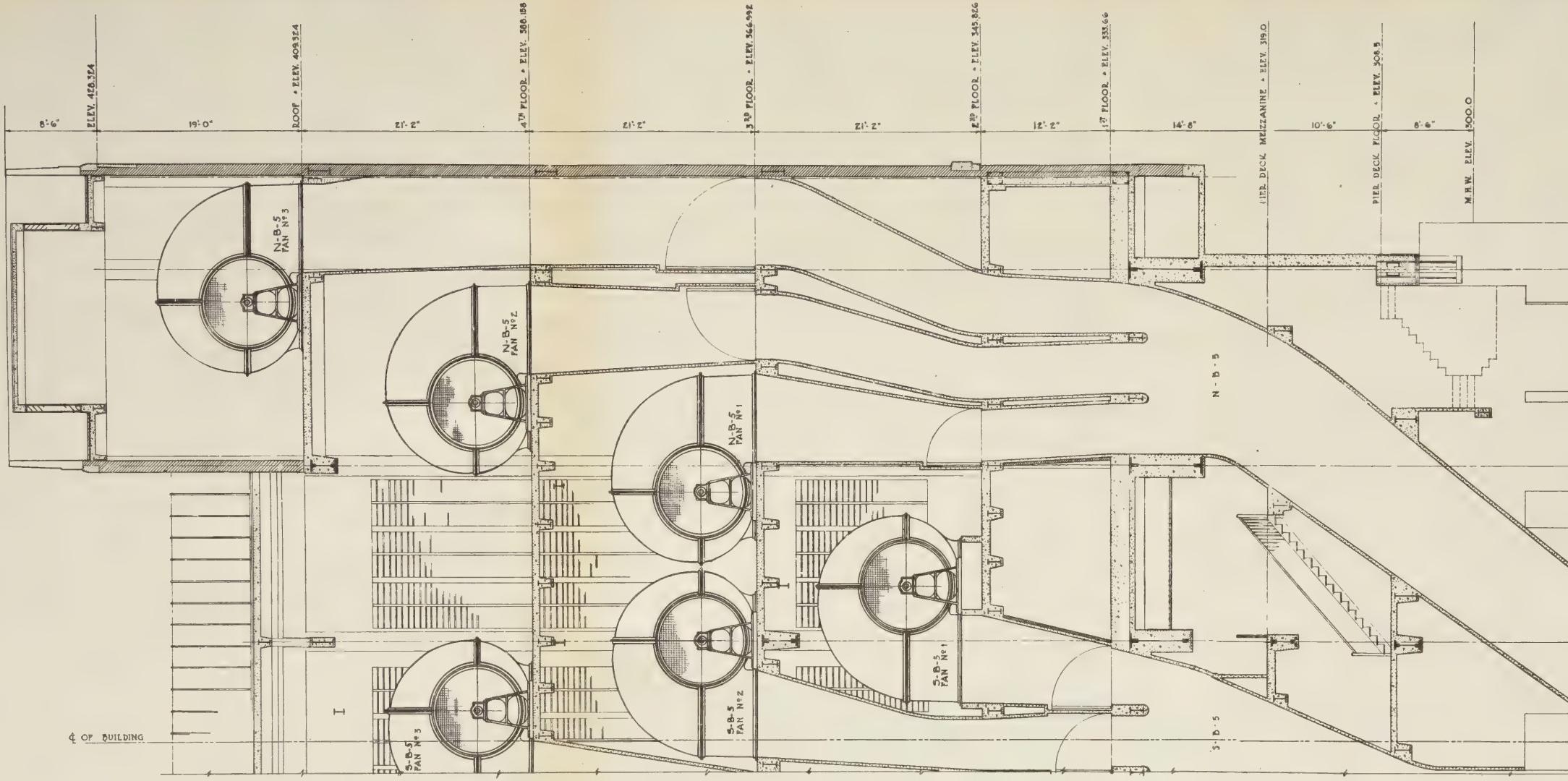
**THE HOLLAND TUNNEL**  
CONTRACT No. 12  
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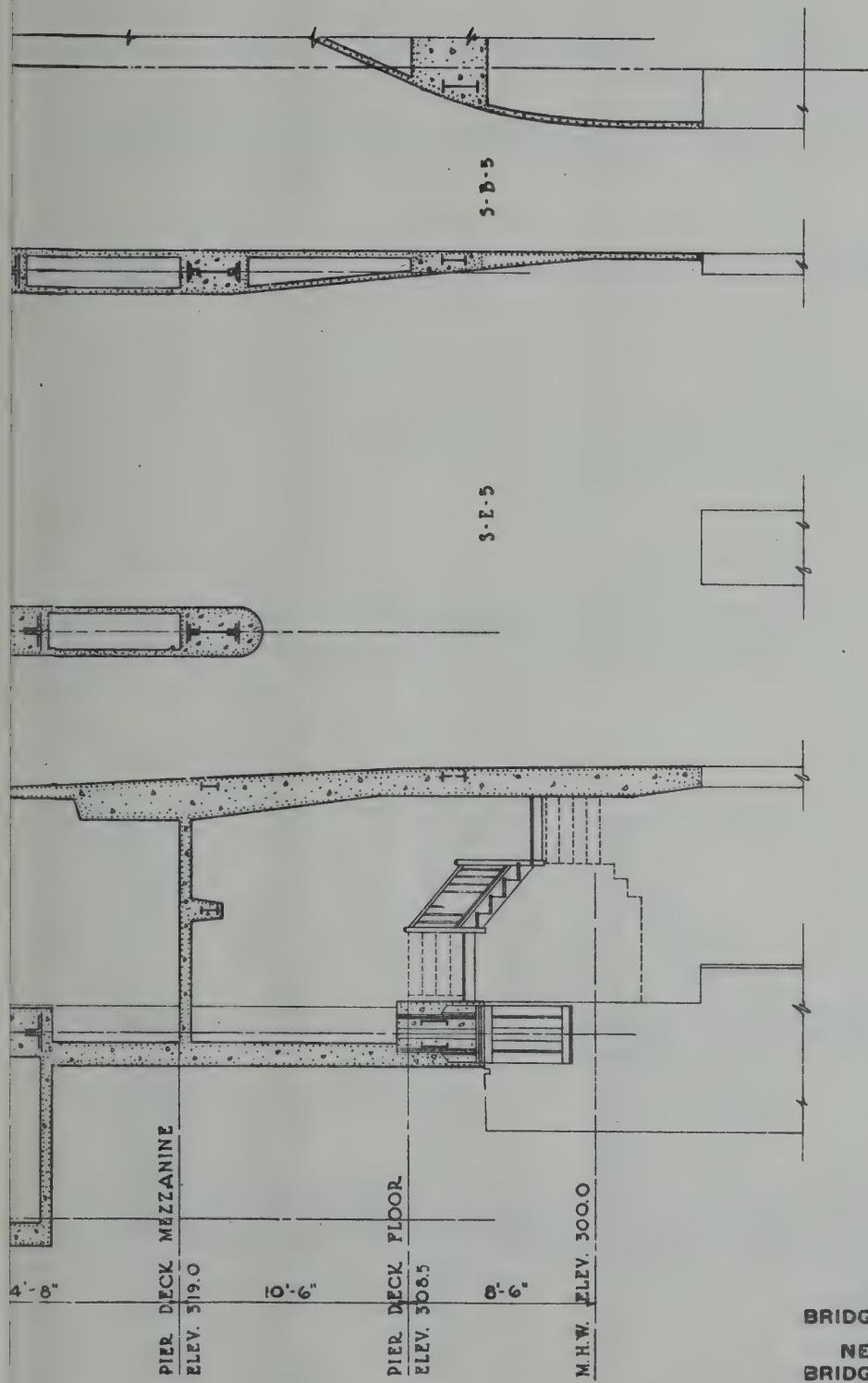
*A. C. Willard*  
*H. B. Stillwell* } CONSULTANTS

SCALE: 0 1 2 3 4 5 FEET DATE: JULY 7, 1925

DRAWN BY: *J. M. C.*  
CHECKED BY: *S. M.*

*Ole Singstad*  
CHIEF ENGINEER  
FILE NO. 1712





NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION

**THE HOLLAND TUNNEL**  
CONTRACT No.12  
CONTRACT DRAWING No.18

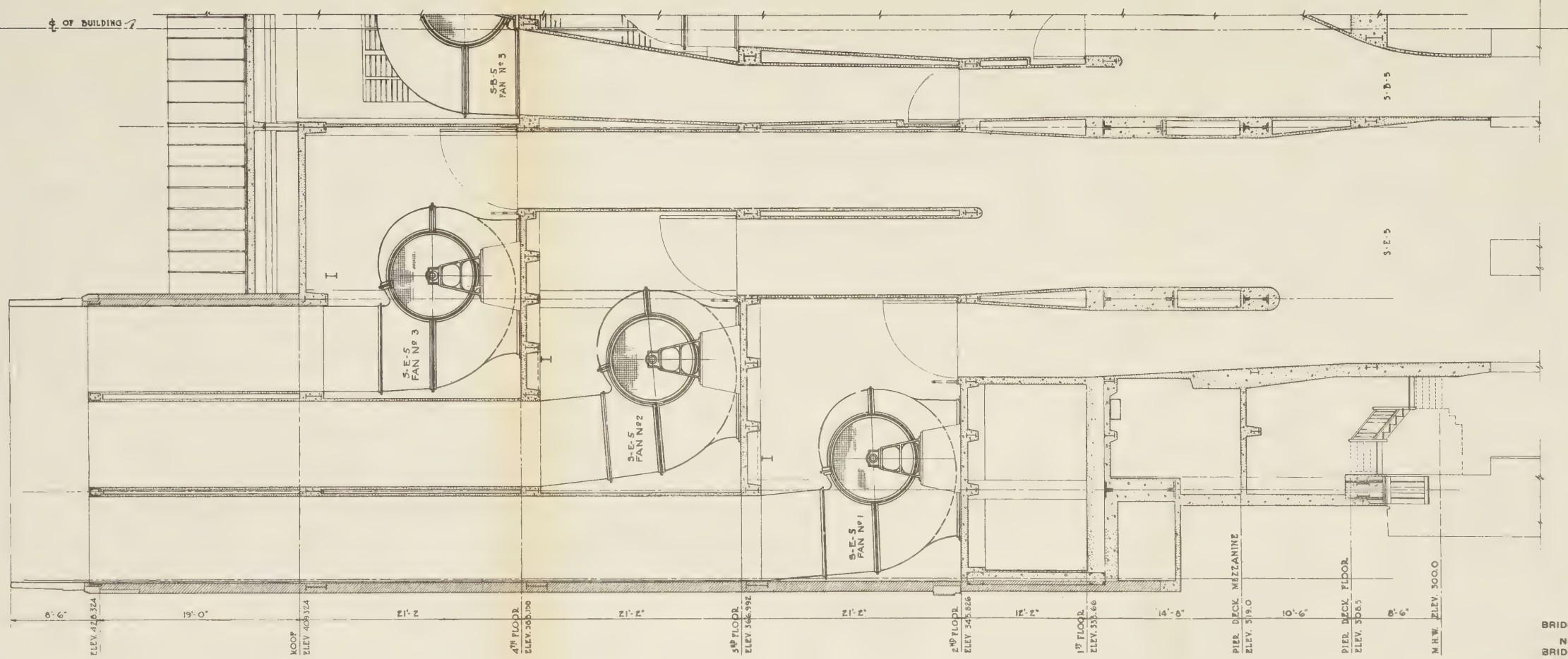
A. C. Willard  
G. B. Stillwell

} CONSULTANTS

SCALE: 0 1 2 3 4 5 FEET DATE JULY 7, 1925

DRAWN BY Hyc  
CHECKED BY Swm

Ole Singstad  
CHIEF ENGINEER  
FILE NO. 1-12



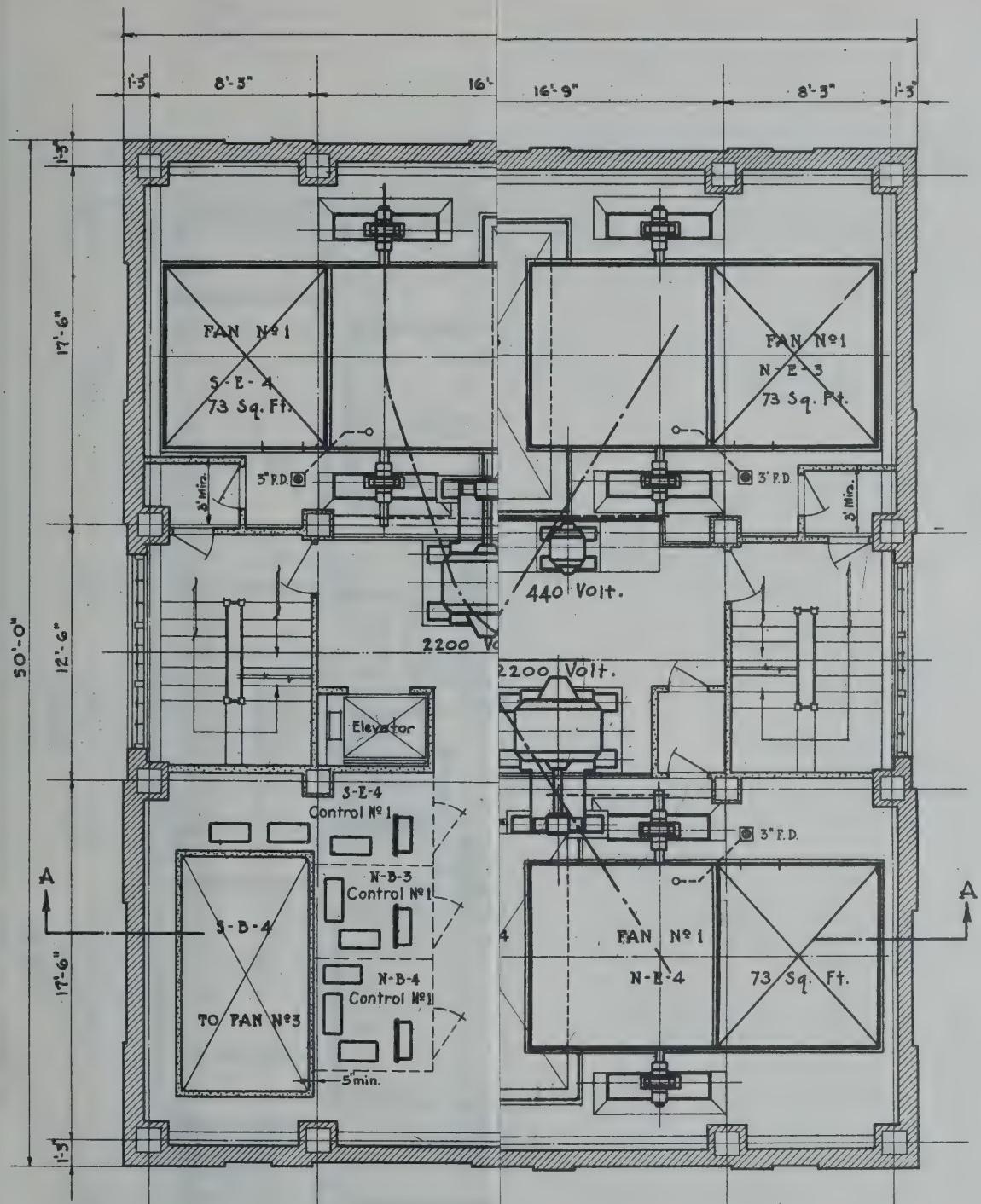
*A. G. Willard*  
MECHANICAL ENGINEER  
*G. B. Stillwell*  
ELECTRICAL ENGINEER  
*Robert Smith*  
ENGINEER OF DESIGNS

NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION  
THE HOLLAND TUNNEL  
CONTRACT NO. 12  
CONTRACT DRAWING NO. 18

SCALE 0 1 2 3 4 5 FEET DATE JULY 7, 1953

DRAWN BY *J. H. G.*  
CHECKED BY *J. H. G.*

M. B. Brown Printing & Binding Co.,  
37-41 Chambers Street, N.Y.



NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION

**THE HOLLAND TUNNEL**  
CONTRACT No. 12  
CONTRACT DRAWING No. 14

*Ole Singstad*  
MECHANICAL ENGINEER

*J. N. Ordway*  
ELECTRICAL ENGINEER

*Ralph Smith*  
ENGINEER OF DESIGNS

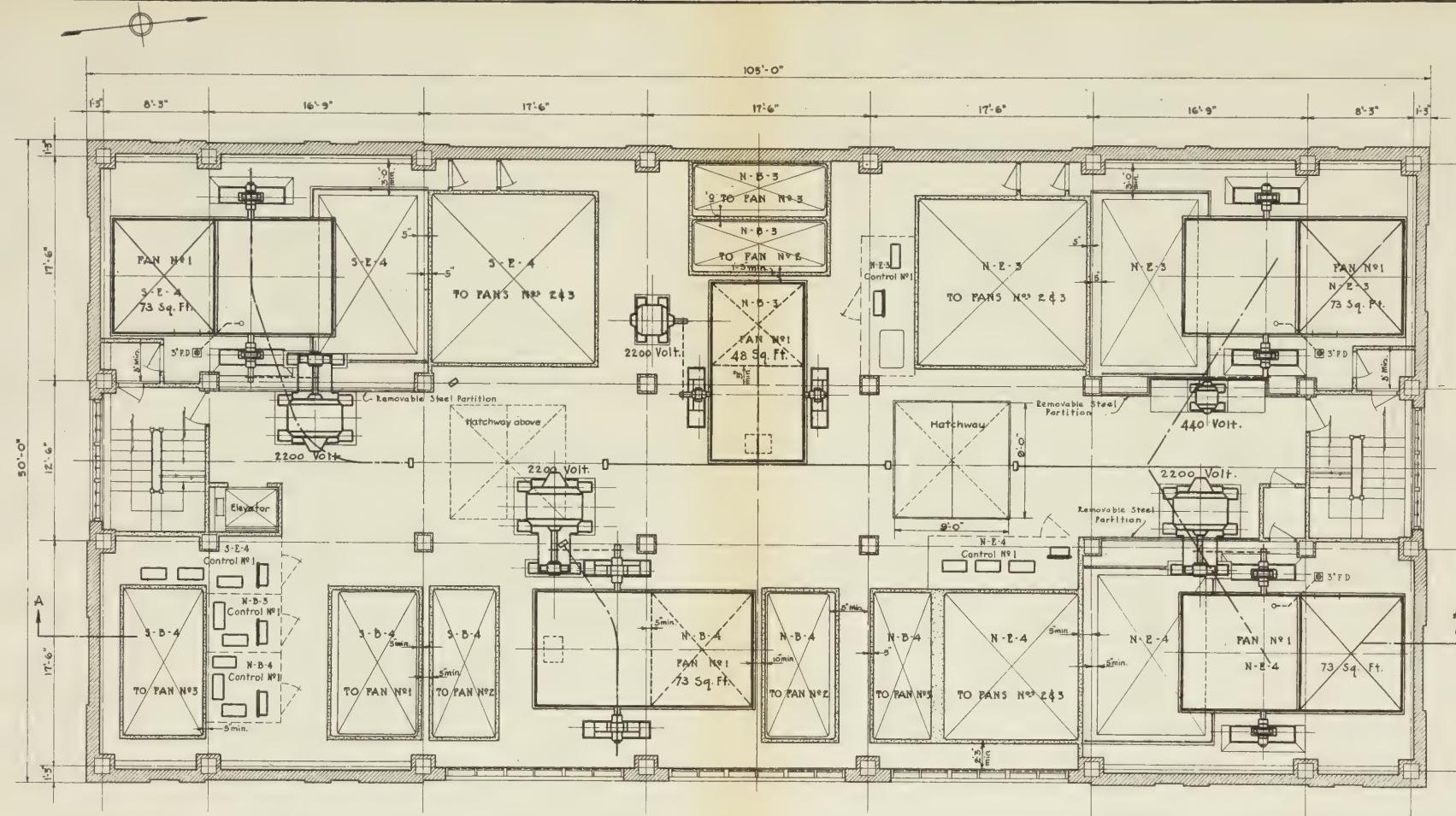
CONSULTANTS

SCALE: 0 1 2 3 4 5 FEET DATE: JULY 26, 1925

DRAWN BY *J. H. C.*  
CHECKED BY *C. W. M.*

*Ole Singstad*  
CHIEF ENGINEER

FILE NO. 1-12



• SECOND FLOOR PLAN •

• RIVER VENTILATION BUILDING • N.J. •

*A. C. Willard*  
MECHANICAL ENGINEER  
*H. B. Stillwell*  
ELECTRICAL ENGINEER  
SIGNER OF DESIGNS

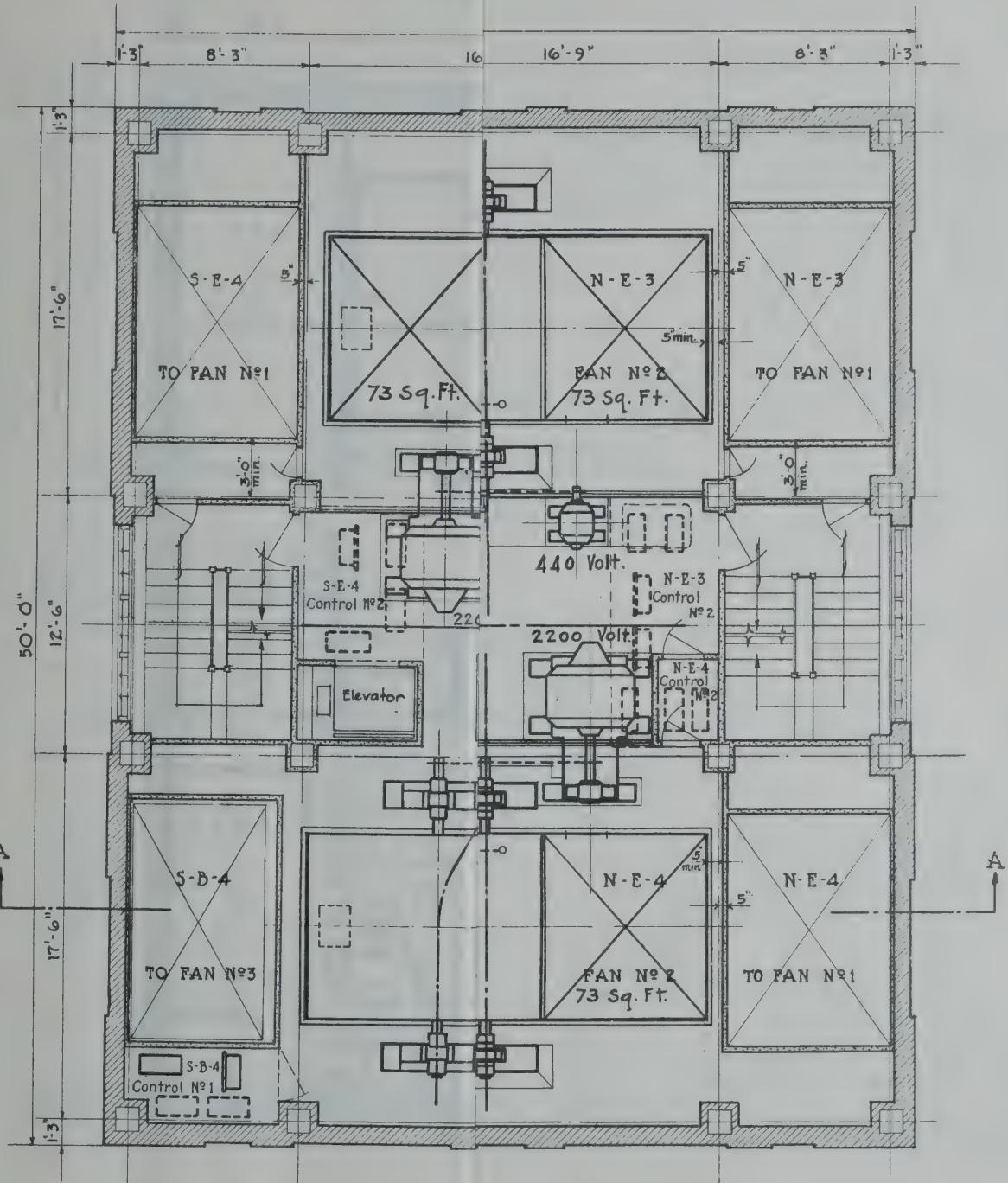
*A. C. Willard*  
*H. B. Stillwell* CONSULTANTS

NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
THE  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION  
THE HOLLAND TUNNEL  
CONTRACT No. 12  
CONTRACT DRAWING No. 14

SCALE: 0 1 2 3 4 5 FEET DATE: MAY 16, 1925

DRAWN BY: *N. E. G.*  
CHECKED BY: *B. M. S.*

M. B. Brown Printing & Binding Co.  
37-41 Chambers Street, N. Y.



NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION

**THE HOLLAND TUNNEL**  
CONTRACT No. 12  
CONTRACT DRAWING No. 15

*Ole Singstad*  
MECHANICAL ENGINEER

*Felix J. Smithee*  
ENGINEER OF DESIGNS

*J. N. Gold*  
ELECTRICAL ENGINEER

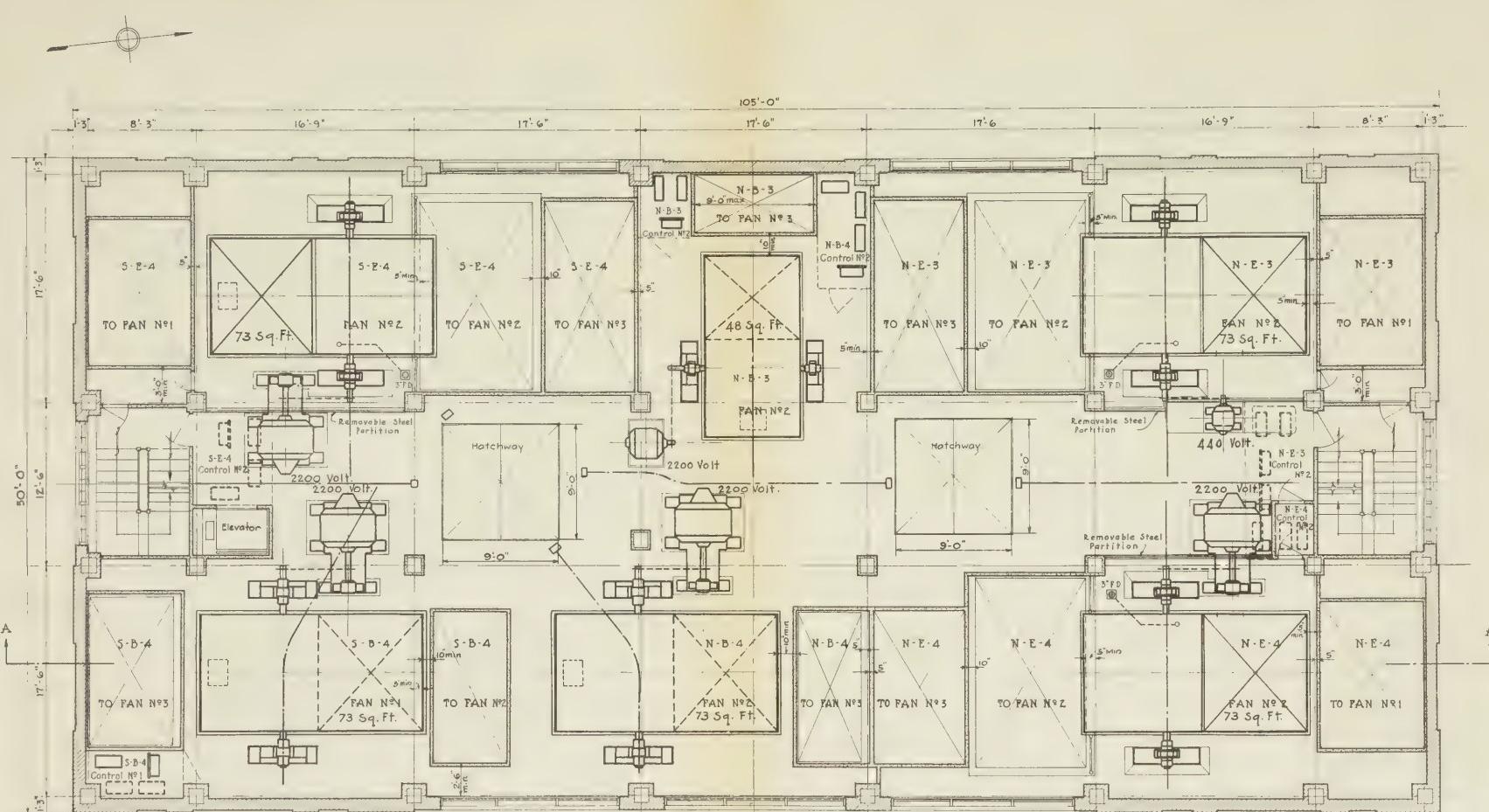
CONSULTANTS

SCALE: 0 1 2 3 4 5 FEET DATE JULY 7, 1925

DRAWN BY *HHC*  
CHECKED BY *W.M.*

*Ole Singstad*  
CHIEF ENGINEER

FILE NO. 1-12



- THIRD FLOOR PLAN -

## RIVER VENTILATION BUILDING - N.J.

*R. C. Davis*  
MECHANICAL ENGINEER  
*B. L. Dodd*  
ELECTRICAL ENGINEER  
*Frank J. Daniels*  
ENGINEER OF DESIGNS

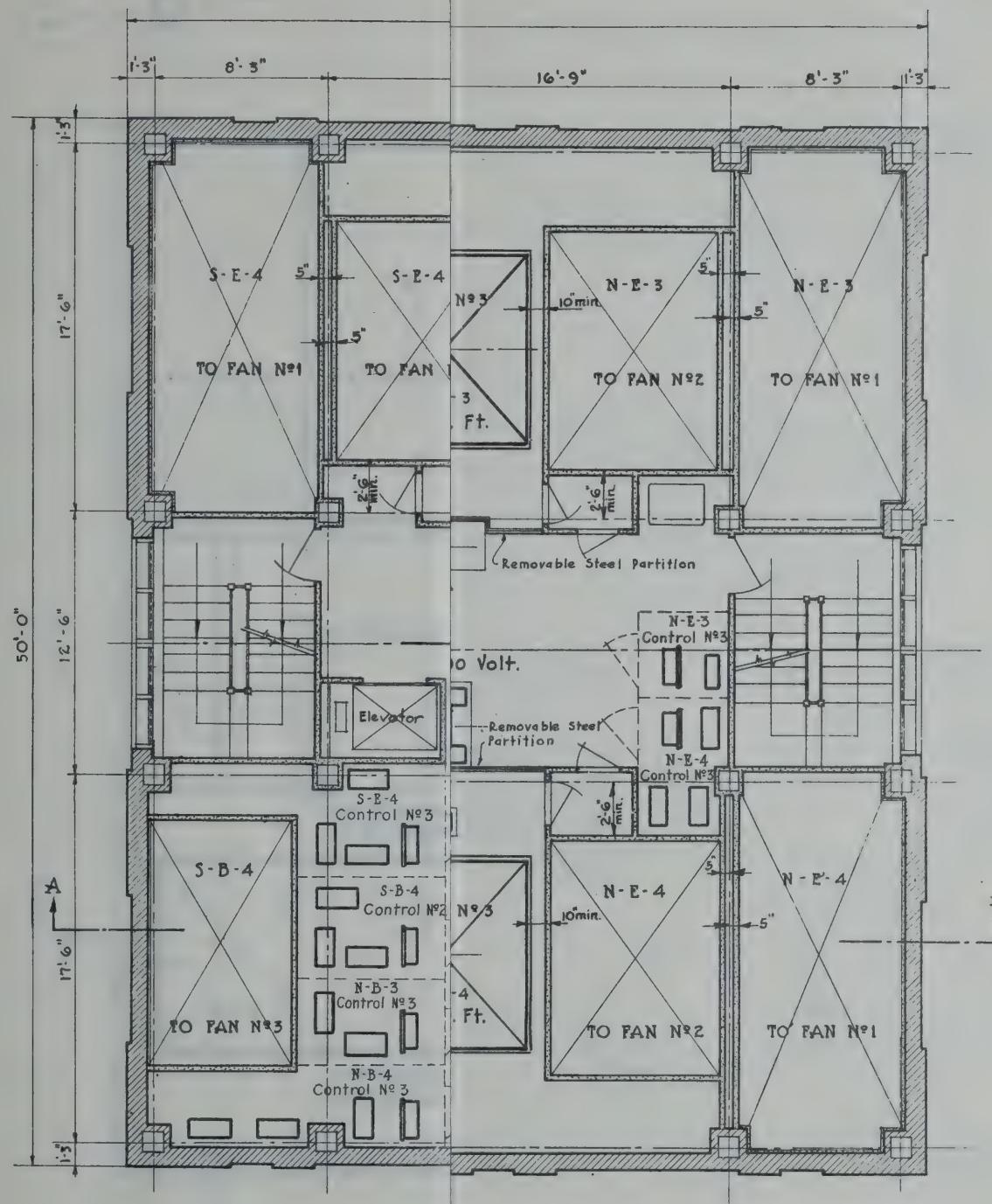
A. F. Willard.  
Genl. Stillwell. } CONSULTANT

**NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION**  
**■ ■ ■**  
**NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION**

**THE HOLLAND TUNNEL**  
**CONTRACT No. 12**  
**CONTRACT DRAWING No. 15**

SCALE: 0 1 2 3 4 5 FEET DATE JULY 7, 1925  
DRAWN BY *W.H.C.* *Clewingsta*  
CHIEF ENGINEER

FILE NO. 1-12



NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND

NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION

**THE HOLLAND TUNNEL**  
CONTRACT No. 12  
CONTRACT DRAWING No. 16

CONSULTANTS

*O. Adams*  
MECHANICAL ENGINEER

*J. N. Dodd*  
ELECTRICAL ENGINEER

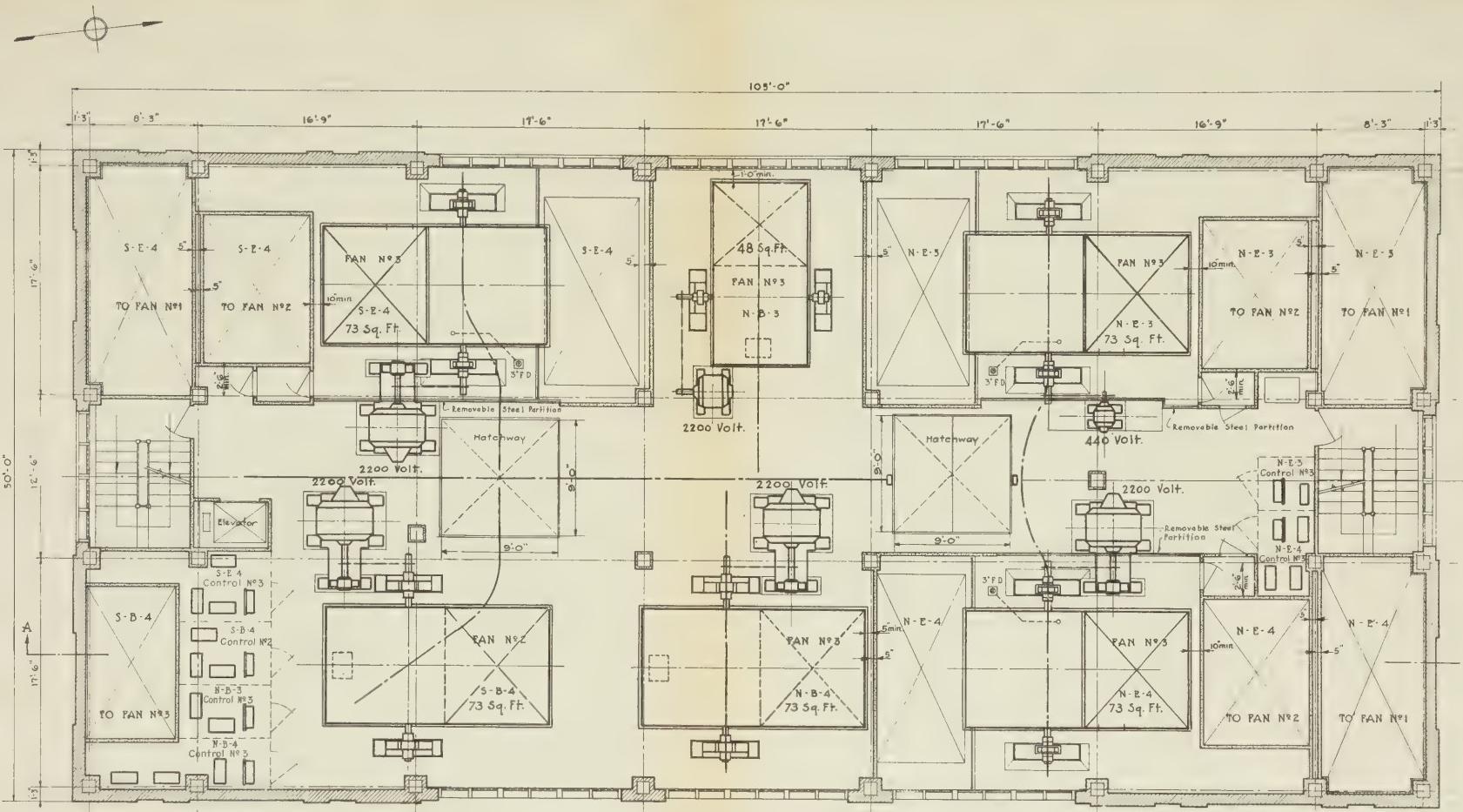
*W. J. Muller*  
ENGINEER OF DESIGNS

SCALE: 0 1 2 3 4 5 FEET DATE JULY 7, 1915

DRAWN BY *H. C. G.*  
CHECKED BY *C. W. M.*

*Ole Singstad*  
CHIEF ENGINEER

FILE NO. 1-18



• FOURTH FLOOR PLAN •

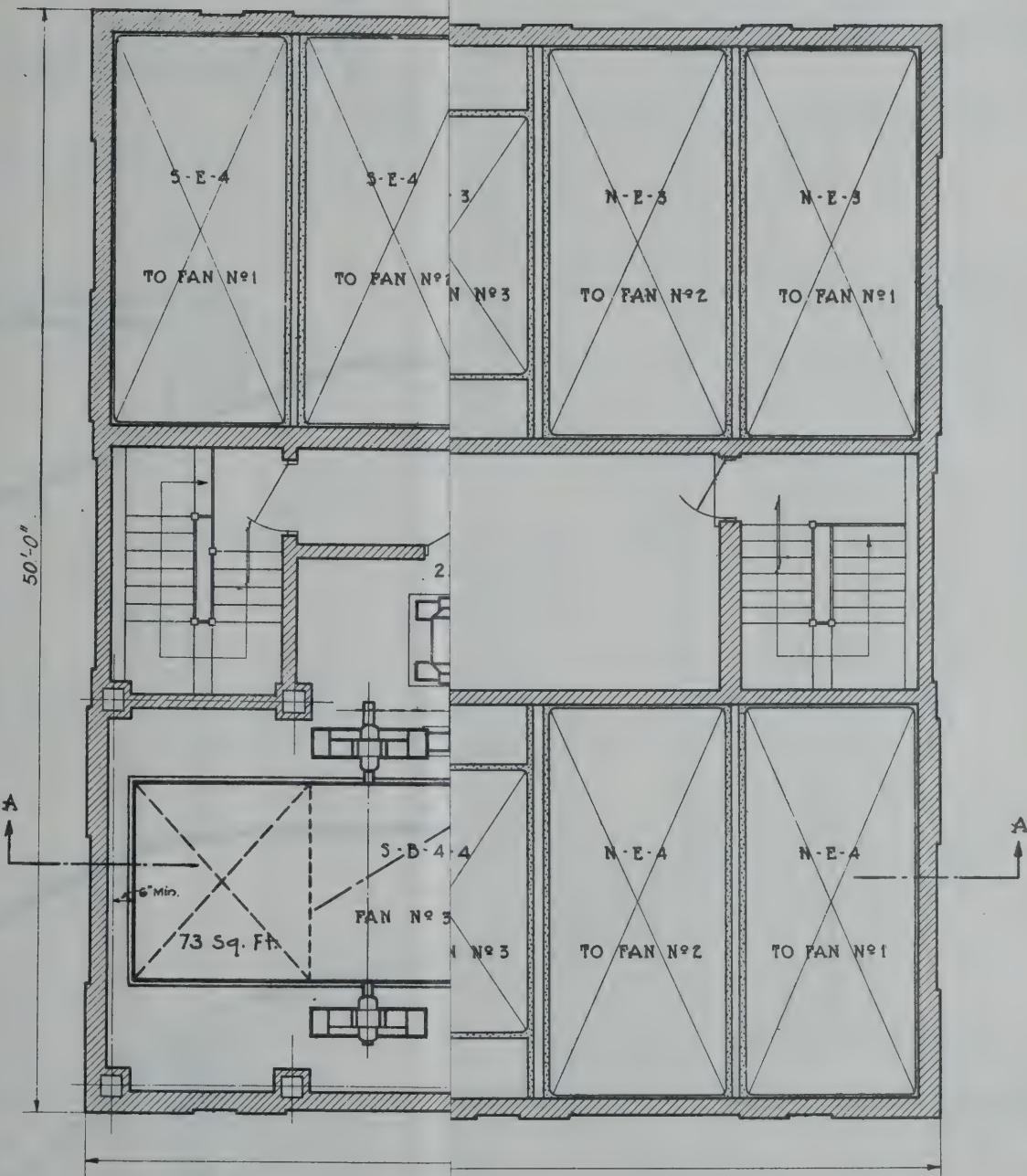
• RIVER VENTILATION BUILDING • N.J. •

*H. C. Clark*  
MECHANICAL ENGINEER  
*J. N. Dohle*  
ELECTRICAL ENGINEER  
*Walter Smith*  
ENGINEER OF DESIGNS

*A. C. Willard*  
CONSULTANTS  
*R. L. T. Associates*

NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION  
THE HOLLAND TUNNEL  
CONTRACT No. 12  
CONTRACT DRAWING No. 16

SCALE: 0 1 2 3 4 5 FEET DATE: JULY 7, 1952  
FILE NO. I-16  
DRAWN BY *W. G. Smith* CHECKED BY *B. W. Dunn*  
*Ole Singstad* CHIEF ENGINEER



NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION

THE HOLLAND TUNNEL  
CONTRACT No. 12  
CONTRACT DRAWING No. 17

CONSULTANTS

*Hedrick*  
MECHANICAL ENGINEER  
J. N. Dohle  
ELECTRICAL ENGINEER  
W. W. [Signature]  
ENGINEER OF DESIGNS

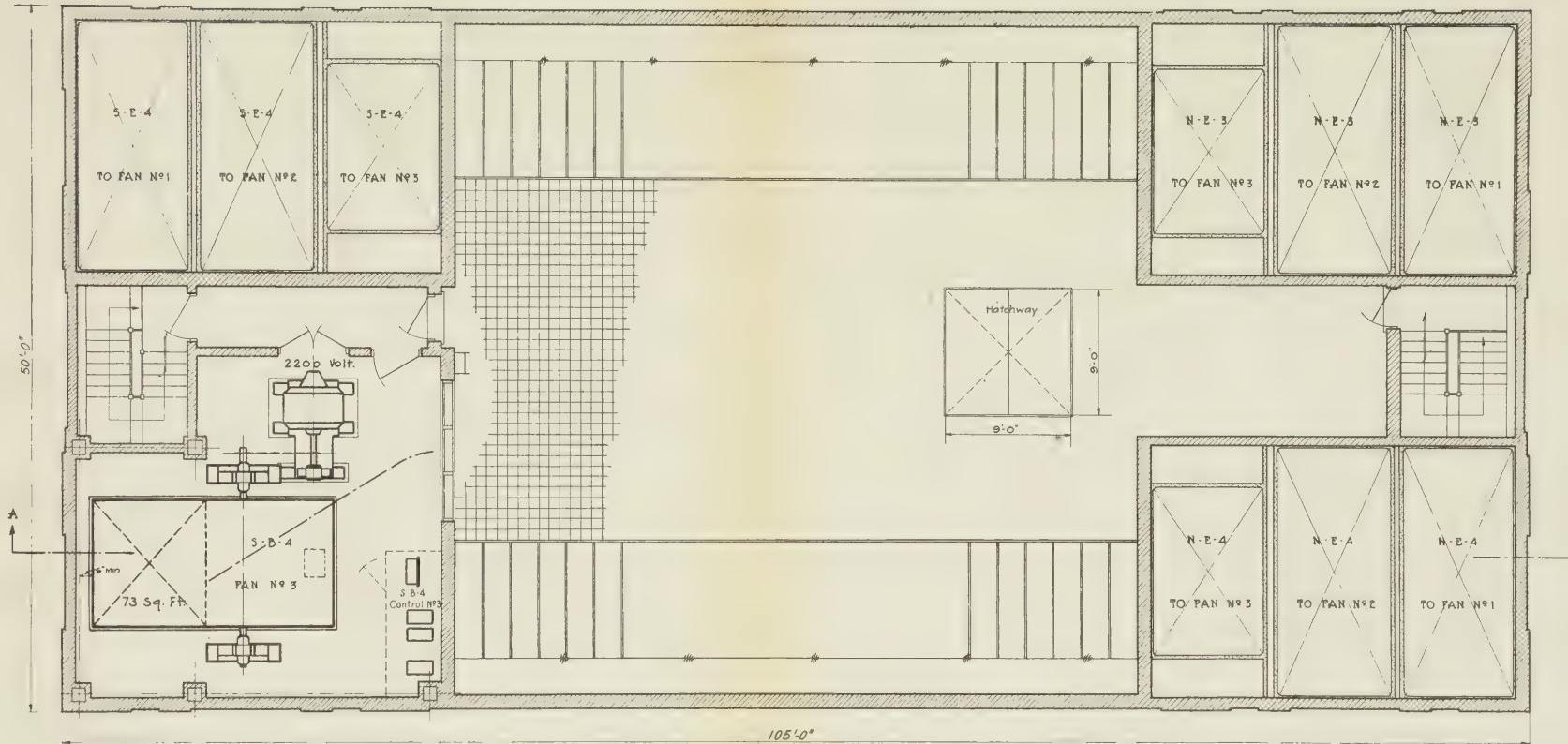
SCALE: 0 1 2 3 4 5 FEET DATE JULY 7, 1925

DRAWN BY *J. E. C.*  
CHECKED BY *J. W. M.*

*Ole Singstad*  
CHIEF ENGINEER

FILE NO. 1-12

M. B. Brown Printing & Binding Co.,  
37-41 Chambers Street, N. Y.



• ROOF PLAN •

• RIVER VENTILATION BUILDING • N.J. •

*M. B. Brown*  
MECHANICAL ENGINEER  
J. M. Smith  
ELECTRICAL ENGINEER  
ENGINEER OF DESIGNS

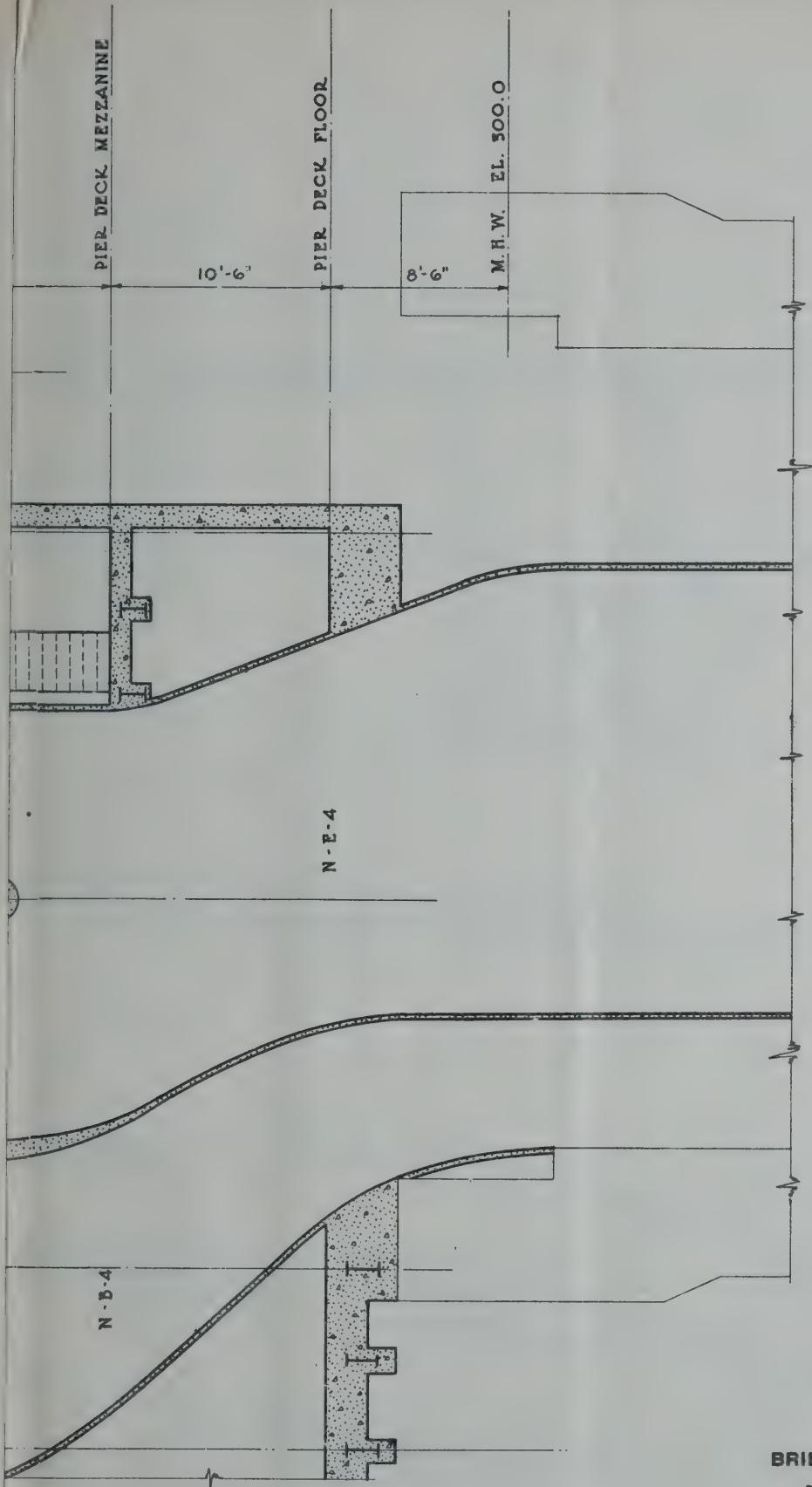
*A. C. Willard*  
*G. L. Dillinger* CONSULTANTS

NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION  
THE HOLLAND TUNNEL  
CONTRACT NO. 12  
CONTRACT DRAWING NO. 17

SCALE: 0 1 2 3 4 5 FEET DATE: JULY 7, 1918

DRAWN BY *J. M. C.*  
CHECKED BY *B. C. M.*

M. B. Brown Printing & Binding Co.  
37-41 Chambers Street, N. Y.



NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION

**THE HOLLAND TUNNEL**  
CONTRACT No.12  
CONTRACT DRAWING No.18

*A.C. Willard*  
*G.B. Stillwell*

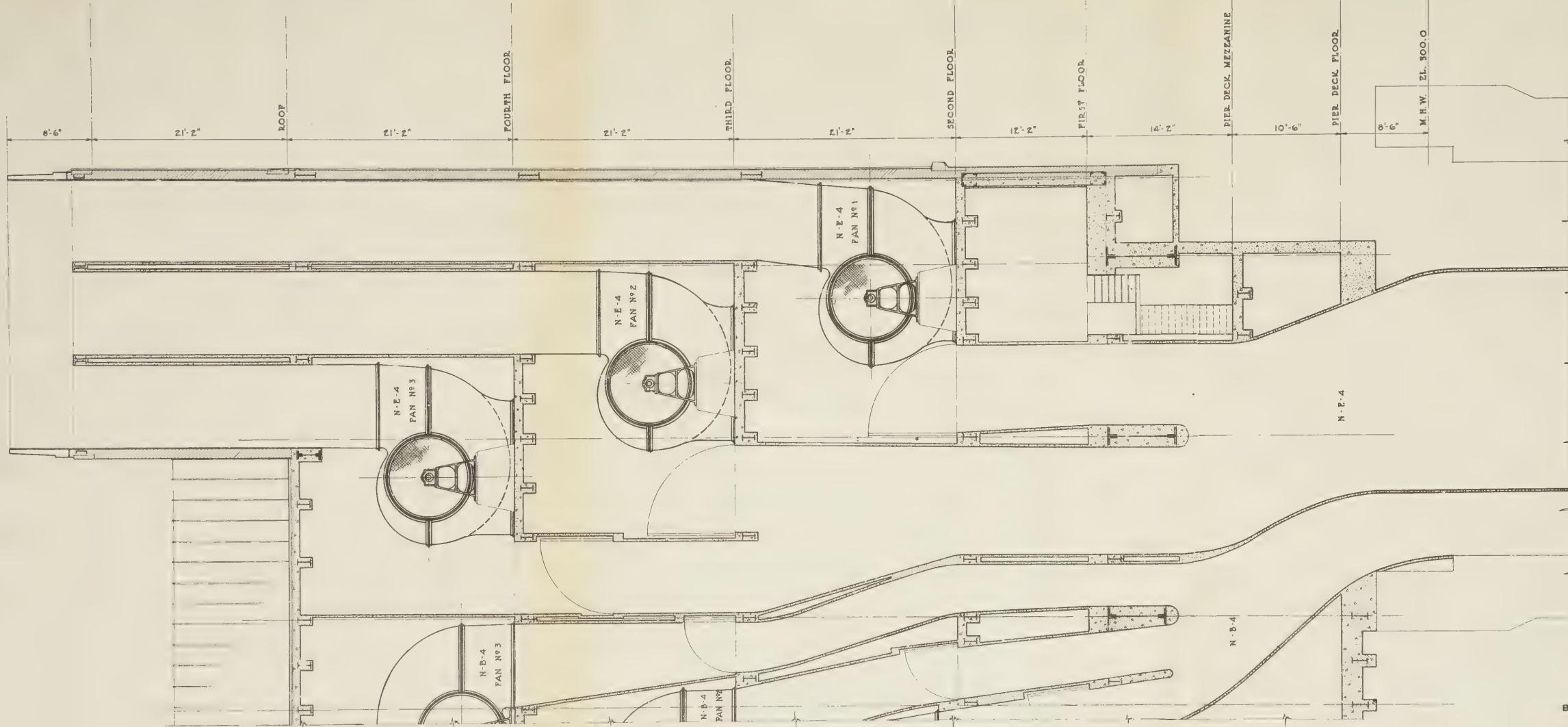
} CONSULTANTS

SCALE: 0 1 2 3 4 5 FEET DATE JULY 7, 1925

DRAWN BY *J. M. G.*  
CHECKED BY *E. W. M.*

*Ole Singstad*  
CHIEF ENGINEER

FILE NO. 1-12



SECTION AA - NORTH HALF -

RIVER VENTILATION BUILDING - N.J.

*George*  
GEORGE  
MECHANICAL ENGINEER  
*Frank Smith*  
FRANK SMITH  
BRINGER OF DISEASES

*O. D. Gold*  
O. D. GOLD  
ELECTRICAL ENGINEER

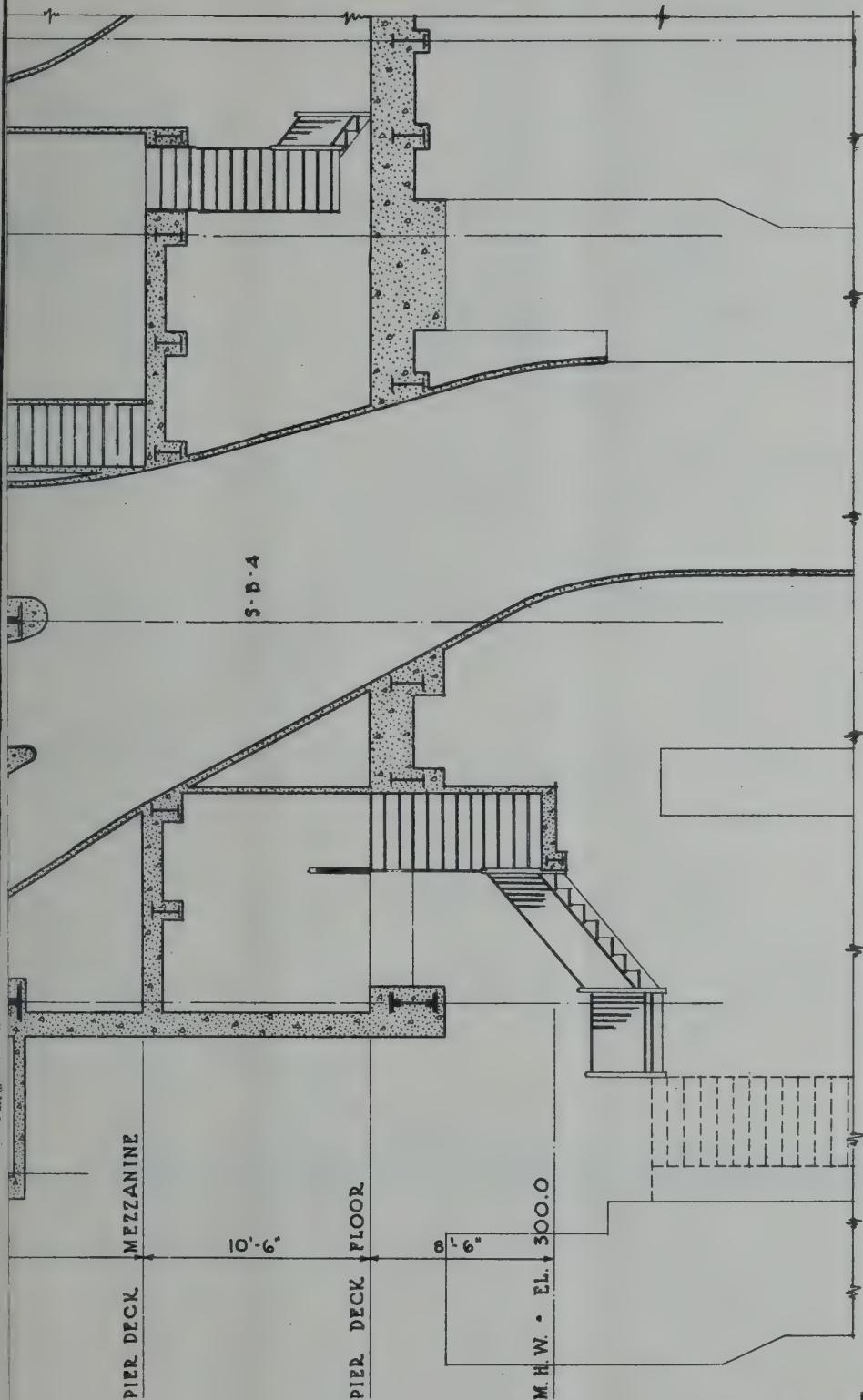
*A. C. Willard*  
A. C. WILLARD  
CONSULTANTS  
*H. A. Stillwell*  
H. A. STILLWELL

NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION  
THE HOLLAND TUNNEL  
CONTRACT NO.12  
CONTRACT DRAWING NO.18

SCALE: 0 1 2 3 4 5 FEET DATE: JULY 1, 1915

DRAWN BY *H. G. C.*  
CHECKED BY *H. G. C.*

M. B. Brown Printing & Binding Co.,  
37-41 Chambers Street, N. Y.



NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION

THE HOLLAND TUNNEL  
CONTRACT No. 12  
CONTRACT DRAWING No. 19

*A. C. Willard*  
*G. B. Stellwell*

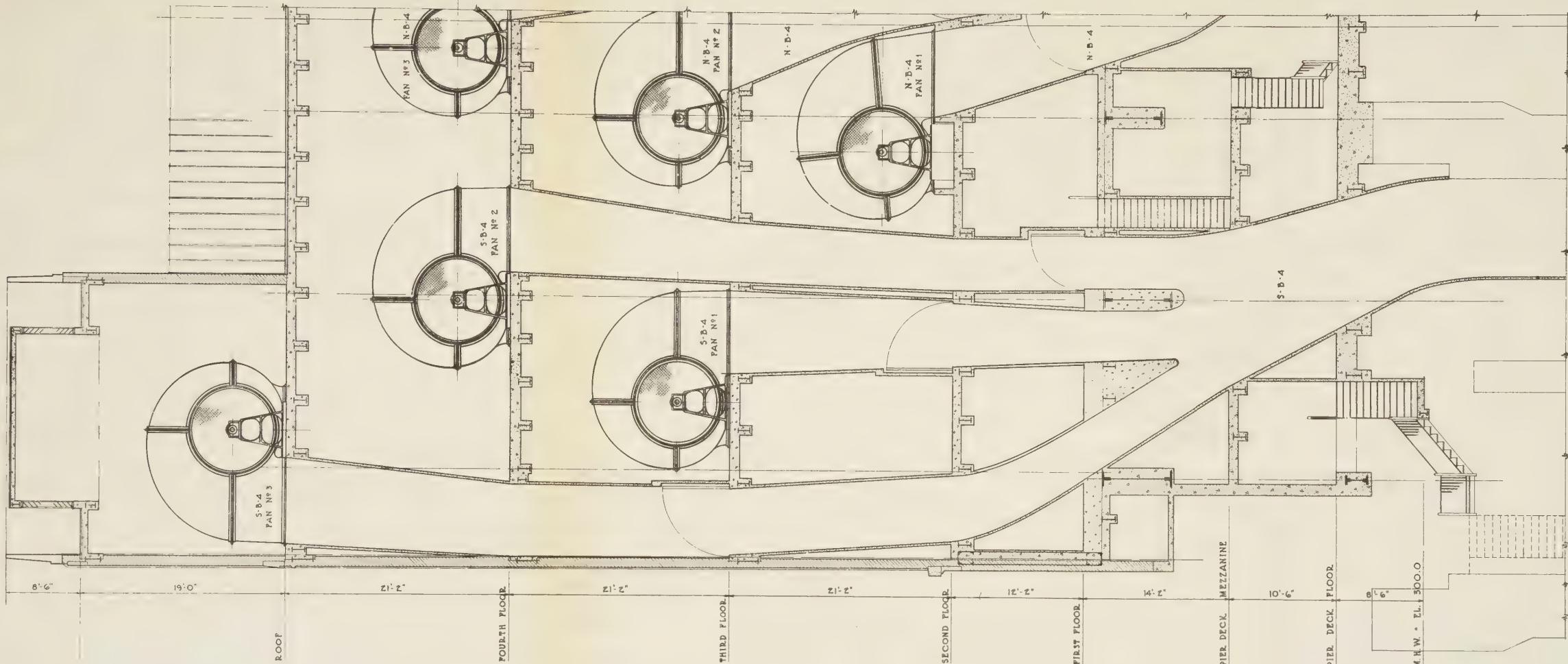
CONSULTANTS

SCALE: 0 1 2 3 4 5 FEET DATE JULY 7 1928

DRAWN BY *spyc*  
CHECKED BY *swm*

*O. L. Singstad*  
CHIEF ENGINEER

FILE NO. 1-12



\* SECTION A-A \* SOUTH HALF \*

\* RIVER VENTILATION BUILDING \* N.J.

*A. C. Willard*  
Mechanical Engineer  
*J. B. Stowell*  
Electrical Engineer  
ENGINEER OF DESIGNS

*A. C. Willard*  
*J. B. Stowell*  
CONSULTANTS

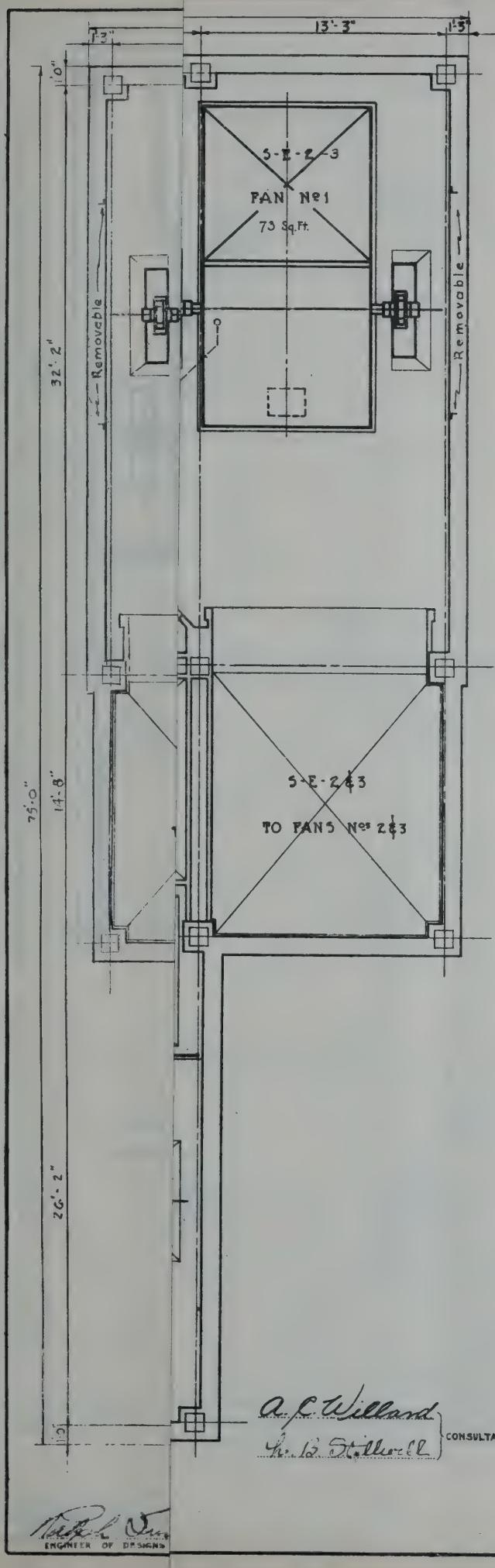
NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION  
THE HOLLAND TUNNEL  
CONTRACT NO. 12  
CONTRACT DRAWING NO. 15

SCALE: 0 1 2 3 4 FEET DATE: JULY 1 1928

DRAWN BY *W.W.M.* CHECKED BY *W.W.M.*

*O. L. Ingberman*  
CHIEF ENGRAYER

FILE NO. 1-12



NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION

**THE HOLLAND TUNNEL**  
CONTRACT NO. 12  
CONTRACT DRAWING NO. 20

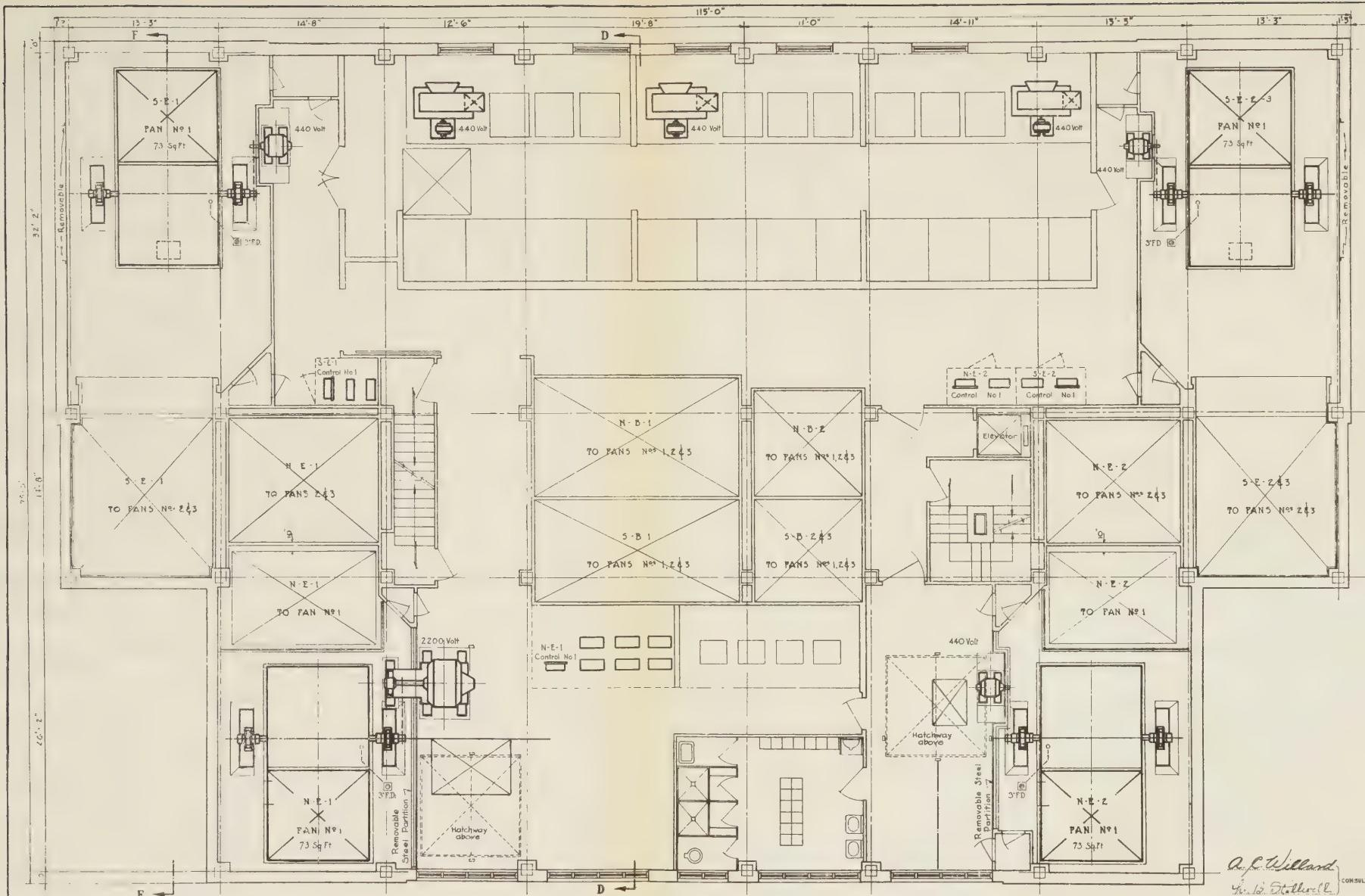
SCALE: 0 1 2 3 4 5 FEET DATE JULY 1 1928

DRAWN BY *sum.*  
CHECKED BY *Hyc.*

*Olaf Engstad*  
CHIEF ENGINEER

FILE NO. 1-2

*Robert S. Smith*  
ENGINEER OF DESIGNS



FIRST FLOOR PLAN  
LAND VENTILATION BUILDING • N.J. •

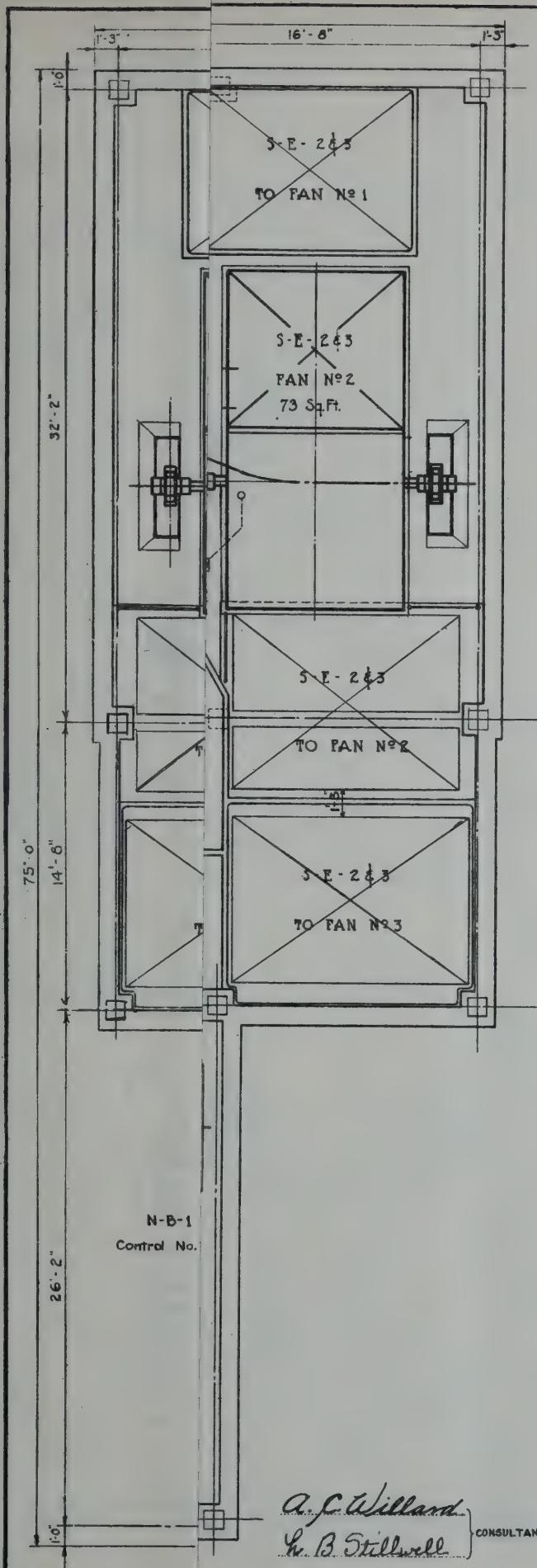
*Architect*  
W. E. Judd, Jr.  
INSTITUTE OF CERTIFIED  
CIVIL ENGINEERS  
G. R. Odell  
ELECTRICAL ENGINEER

*A. C. Willard*  
*G. L. Staller*  
CONSULTANTS

NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION  
THE HOLLAND TUNNEL  
CONTRACT NO. 42  
CONTRACT DRAWING NO. 20

SCALE 0 1 2 3 4 5 FEET DATE JULY 1978  
DRAWN BY *E.W.M.* CHECKED BY *J.H.C.*  
M. B. Brown Printing & Binding Co.,  
FILE NO. I-2





*A. G. Willard  
L. B. Stillwell*

CONSULTANTS

*W. H. Frost*  
ENGINEER OF DESIGNS

NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION

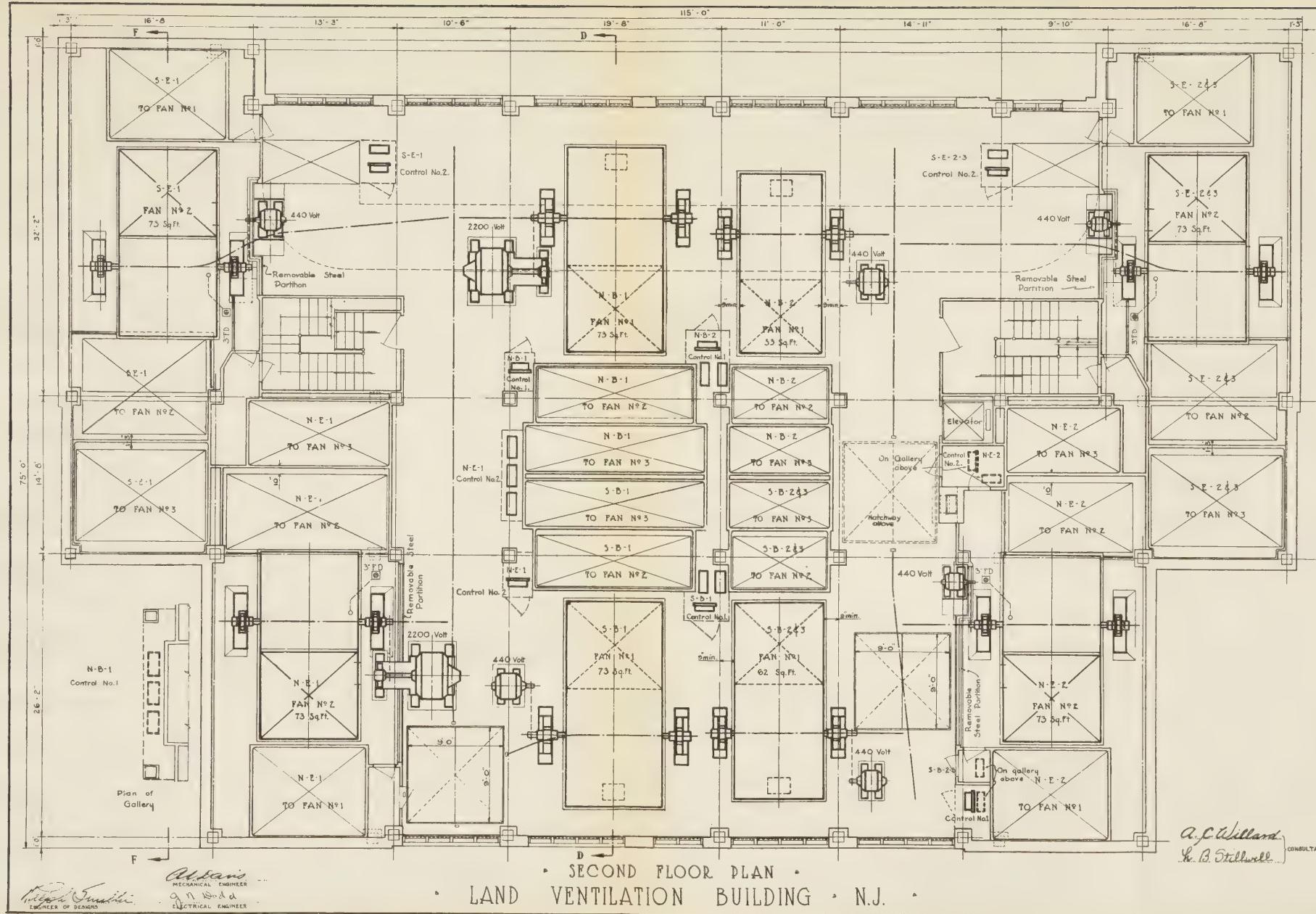
THE HOLLAND TUNNEL  
CONTRACT No. 12  
CONTRACT DRAWING No. 21

SCALE: 0 1 2 3 4 5 FEET DATE: JULY 7, 1925

DRAWN BY *Ewm.*  
CHECKED BY *Hyc.*

*Ole Singstad*  
CHIEF ENGINEER  
FILE NO. 1-12

M. B. Brown Printing & Binding Co.,  
37-41 Chambers Street, N. Y.



NEW YORK STATE  
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AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION  
**THE HOLLAND TUNNEL**  
CONTRACT NO. 12  
CONTRACT DRAWING NO. 21

*A. G. Willard*  
*R. B. Stillwell* CONSULTANTS

SCALE: 0 1 2 3 4 5 FEET DATE JULY 7 1975

DRAWN BY *sum*  
CHECKED BY *mgc*.

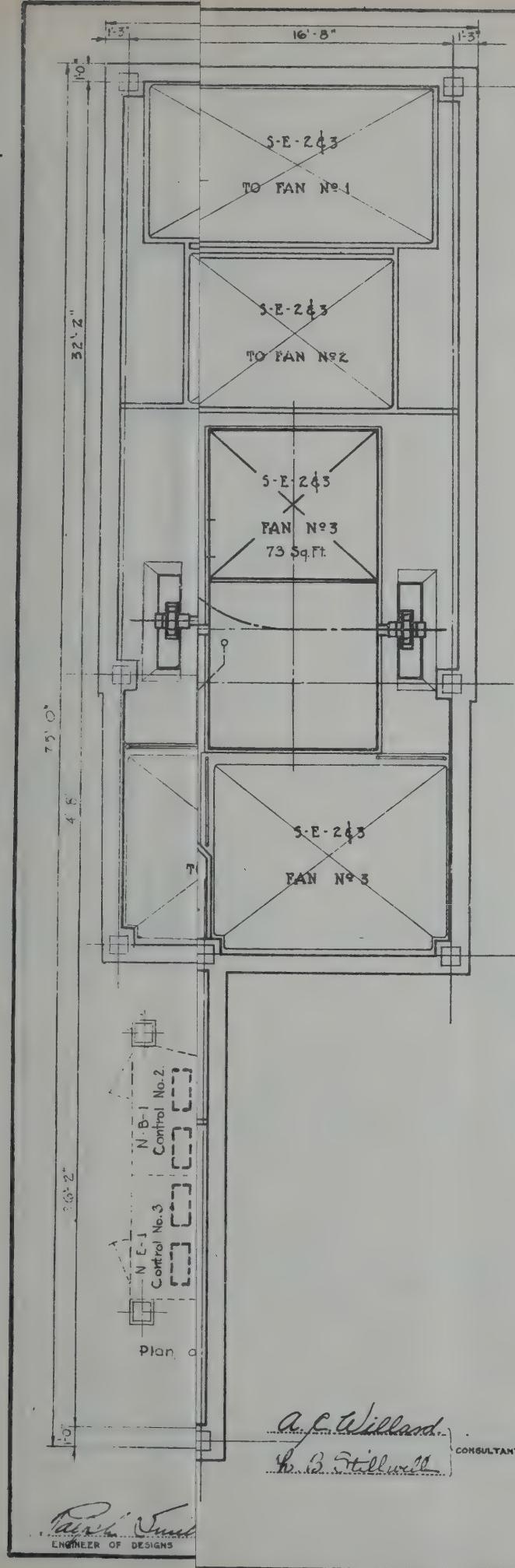
M. B. Brown Printing & Binding Co.  
37-41 Chambers Street, N.Y.

*Frank Franklin*  
ENGINEER OF DEPARTMENTS

*Albion*  
MECHANICAL ENGINEER  
C. W. Ward  
ELECTRICAL ENGINEER

*Ole Singstad*  
CHIEF ENGINEER

FILE NO. 1-12



NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
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NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION

**THE HOLLAND TUNNEL**  
CONTRACT NO. 12  
CONTRACT DRAWING NO. 22

*A. C. Willard*  
*R. B. Stillwell*

CONSULTANTS

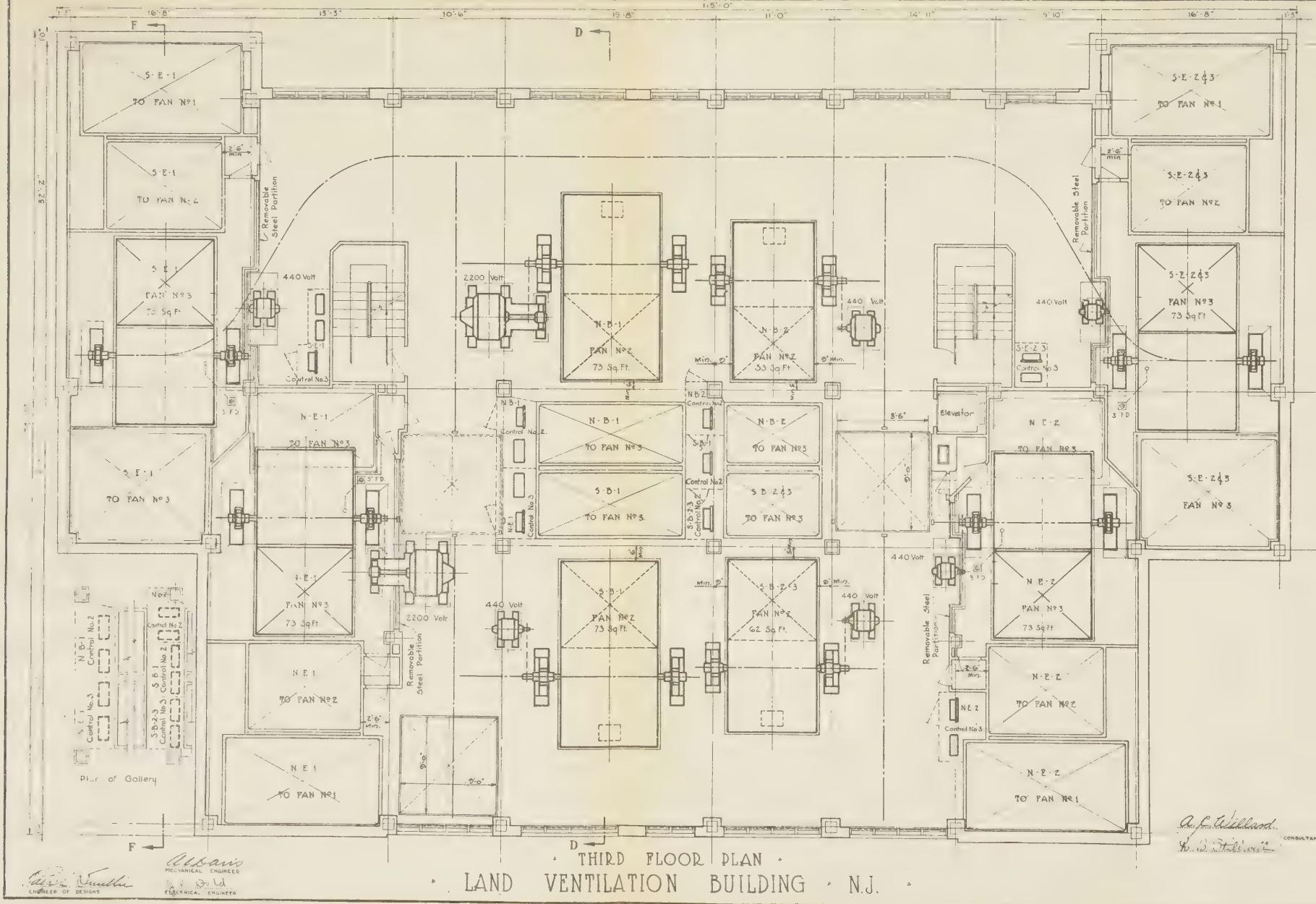
*Perry Jones*  
ENGINEER OF DESIGNS

SCALE 0 1 2 3 4 5 FEET DATE JULY 7, 1925

DRAWN BY *John*  
CHECKED BY *John*

*Ole Singstad*  
CHIEF ENGINEER

FILE NO. 1-12



NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION  
**THE HOLLAND TUNNEL**  
CONTRACT NO. 12  
CONTRACT DRAWING NO. 22

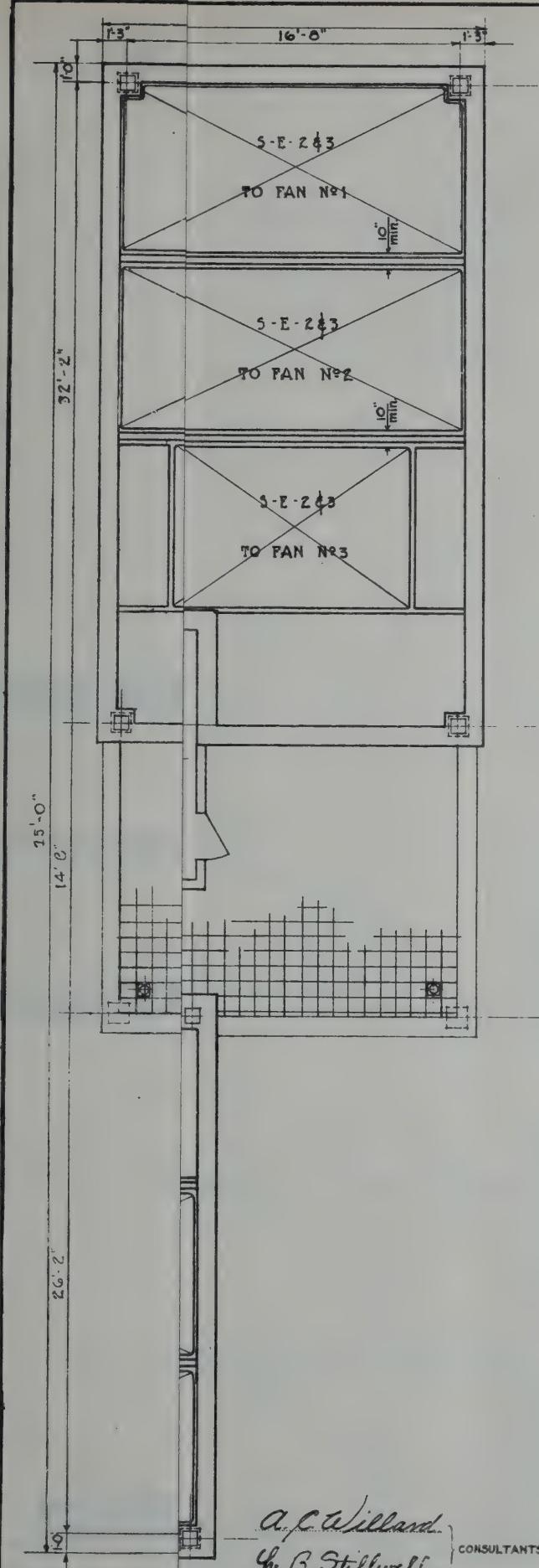
*O. J. Willard*  
*R. B. Stiles*  
CONSULTANTS

SCALE 0 1 2 3 4 5 FEET DATE JULY 7 1928

DRAWN BY *E. Brown*  
CHECKED BY *J. G. C.*

M. B. Brown Printing & Binding Co.  
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BRIDGE & TUNNEL COMMISSION

**THE HOLLAND TUNNEL**  
CONTRACT No.12  
CONTRACT DRAWING No.23

*A.C. Willard*  
*G.B. Stillwell*

CONSULTANTS

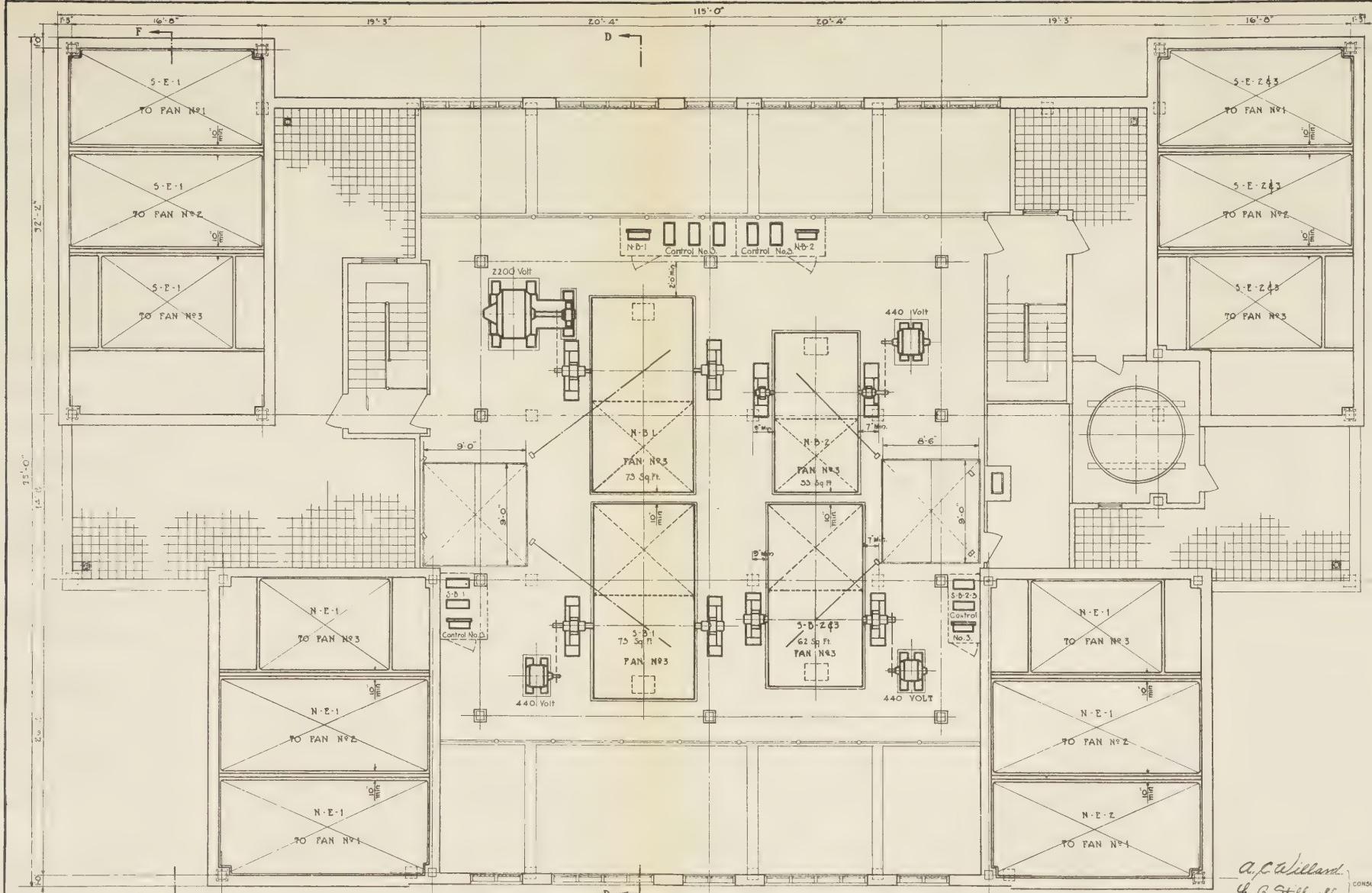
*Ralph Smith*  
ENGINEER OF DESIGNS

SCALE: 0 1 2 3 4 5 FEET DATE JULY 7, 1925

DRAWN BY *ewm.*  
CHECKED BY *JH*.

*C. Livingston*  
CHIEF ENGINEER

FILE NO. 1-12



FOURTH FLOOR PLAN  
LAND VENTILATION BUILDING • N.J.

*R. B. Stellwell*  
Architect of Designs

*J. B. Brown*  
Mechanical Engineer  
Electrical Engineer

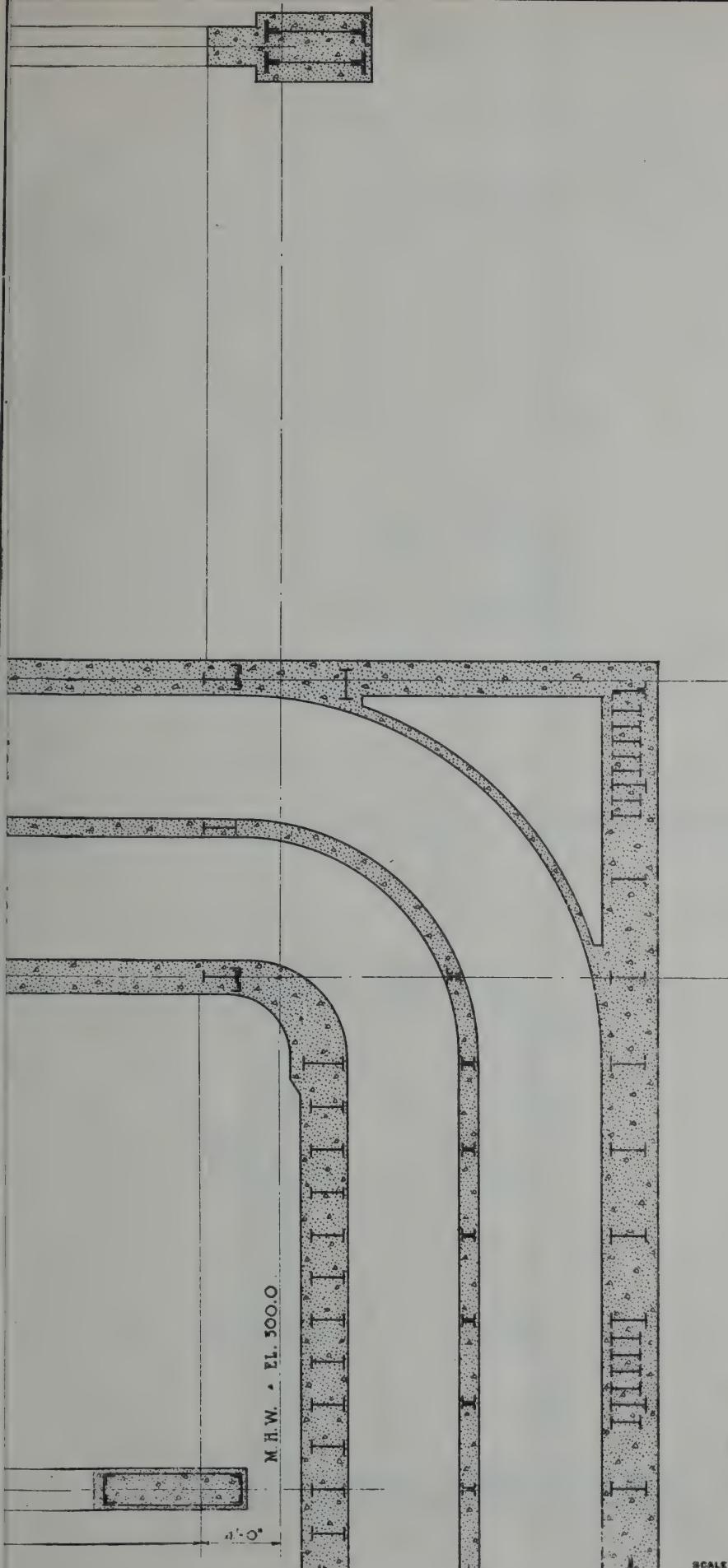
NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION  
THE HOLLAND TUNNEL  
CONTRACT NO. 12  
CONTRACT DRAWING NO. 23

SCALE: 0 1 2 3 4 5 FEET DATE: JULY 7, 1955

DRAWN BY *E. W. Brown*  
CHECKED BY *H. B. Stellwell*

*T. J. Gage*  
CHIEF ENGINEER

FILE NO. 1-18



A.C. Willard

L.B. Stillwell

CONSULTANTS

NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION

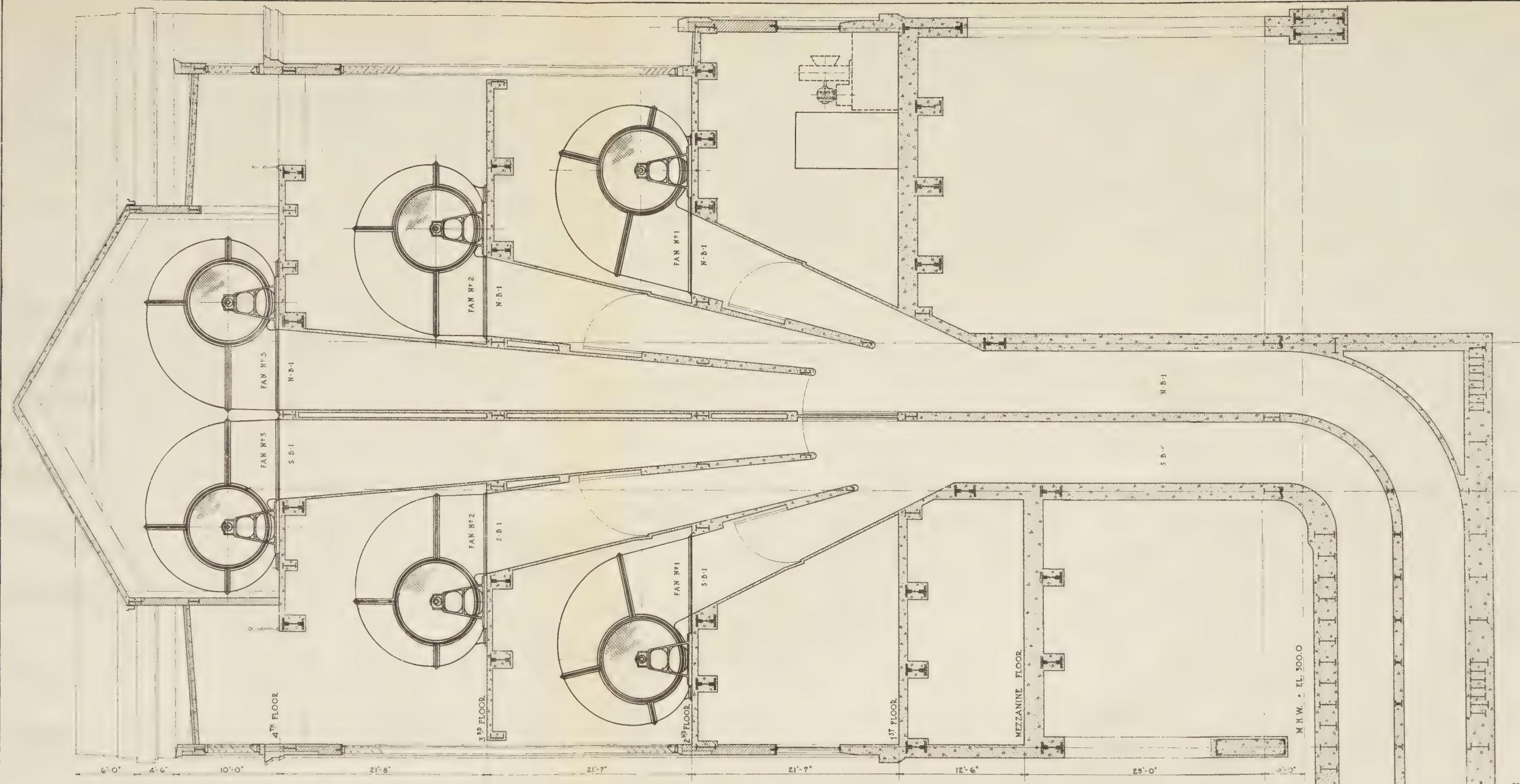
THE HOLLAND TUNNEL  
CONTRACT No. 12  
CONTRACT DRAWING No. 24

SCALE: 0 1 2 3 4 FEET DATE JULY 7, 1925

DRAWN BY EMM  
CHECKED BY MHC

Ole Singstad  
CHIEF ENGINEER

FILE NO. 1-12



SECTION D-D  
LAND VENTILATION BUILDING N.J.

*P. J. Muller*  
ADAMS  
MECHANICAL ENGINEER  
G. R. GARD  
ELECTRICAL ENGINEER  
ENGINEER OF DESIGNS

A.C. Willard  
L.B. Stillwell  
CONSULTANTS

DRAWN BY *W.M.*  
RE-MAILED BY *M.H.C.*

M. B. Brown Printing & Binding Co.,  
37-41 Chambers Street, N. Y.

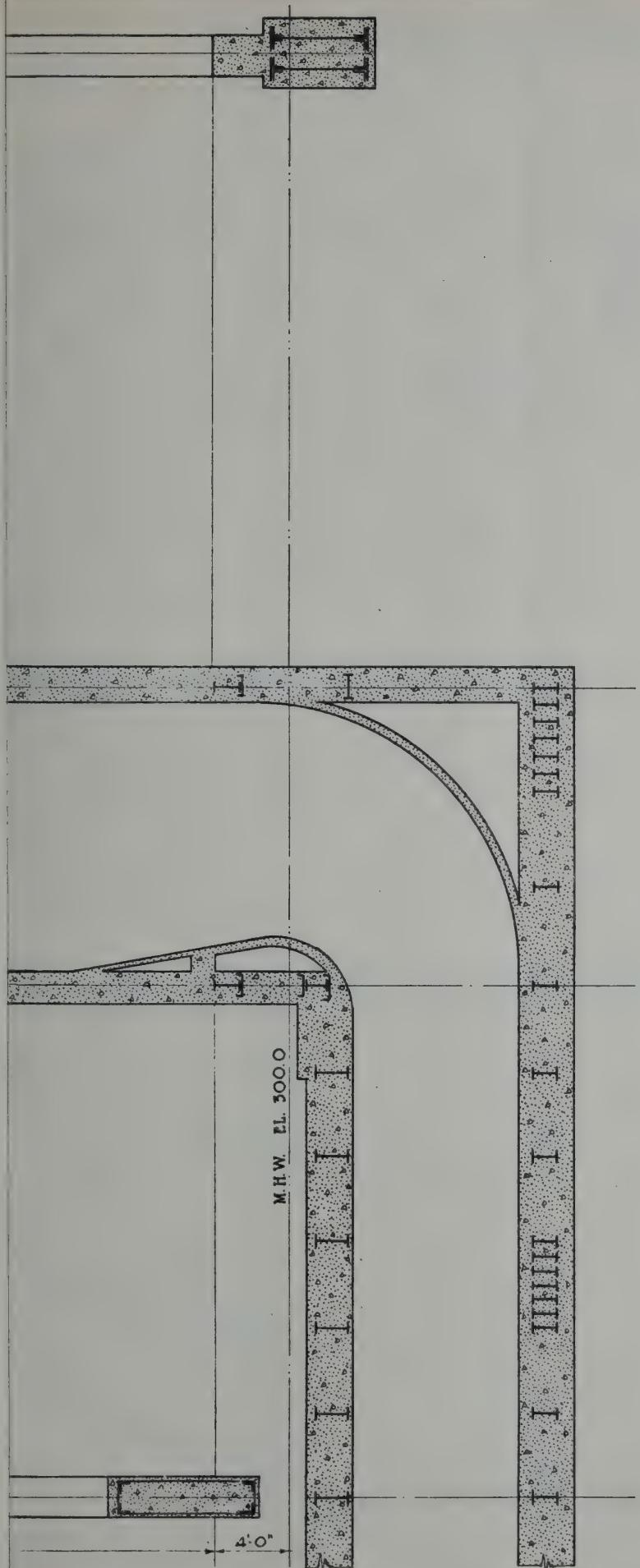
NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
THE NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION  
THE HOLLAND TUNNEL  
CONTRACT NO. 12  
CONTRACT DRAWING NO. 24

SCALE 0 1 2 3 4 5 FEET DATE JULY 7 1928

FILE NO. 12

*O. G. Gandy*

12



A.C. Willard  
R.B. Stillwell } CONSULTANTS

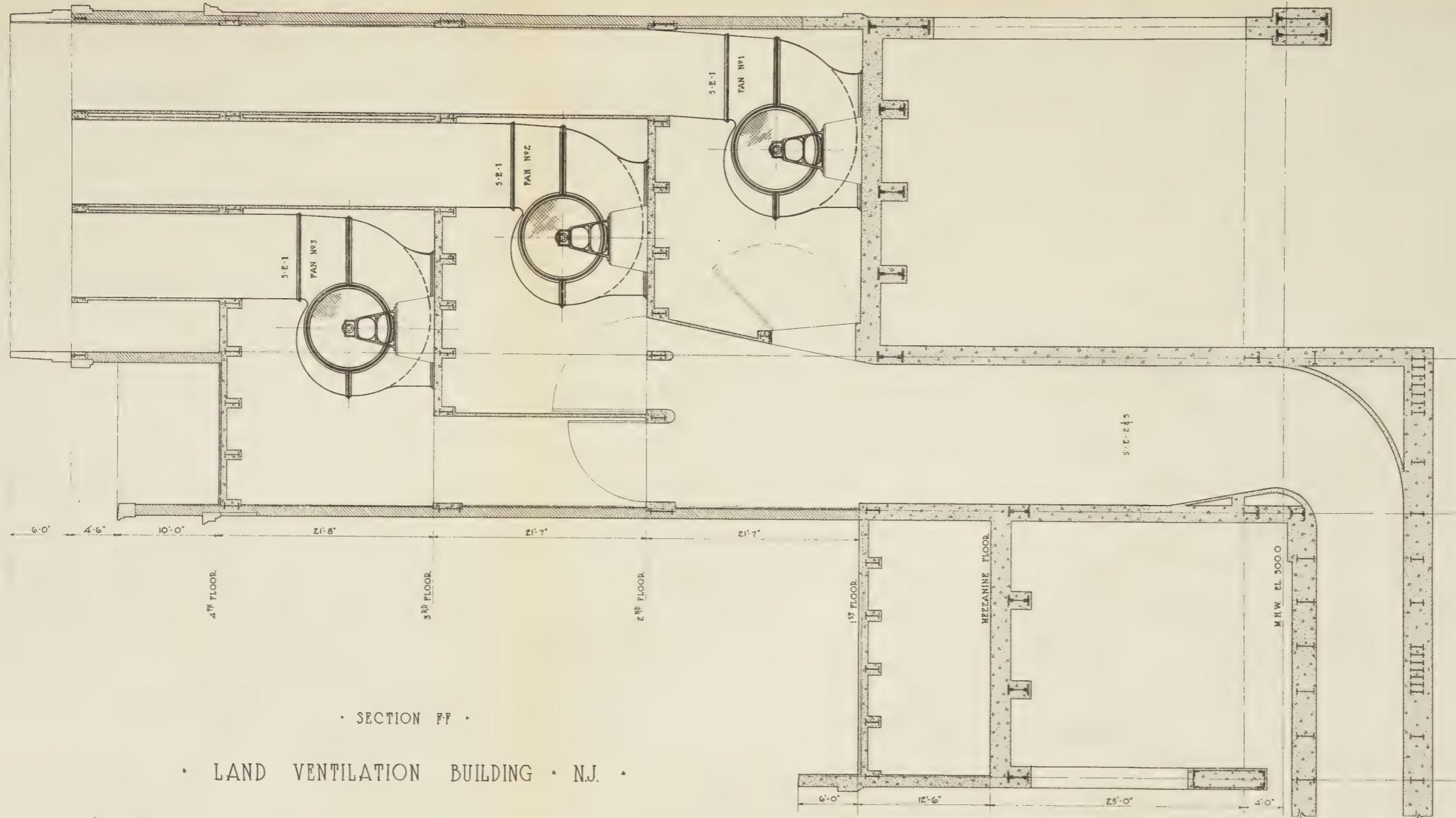
NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION  
**THE HOLLAND TUNNEL**  
CONTRACT No.12  
CONTRACT DRAWING No.25

SCALE: 0 1 2 3 4 5 FEET DATE JULY 7, 1925

DRAWN BY C.W.M.  
CHECKED BY K.E.C.

O. Singstad  
CHIEF ENGINEER

FILE NO I-12



*Frank J. Quinn*  
ENGINEER OF DESIGN  
A. C. Goss  
MECHANICAL ENGINEER  
R. J. Gold  
ELECTRICAL ENGINEER

*A. C. Goss*  
*R. B. Stillwell*  
CONSULTANTS

NEW YORK STATE  
BRIDGE & TUNNEL COMMISSION  
AND  
NEW JERSEY INTERSTATE  
BRIDGE & TUNNEL COMMISSION  
THE HOLLAND TUNNEL  
CONTRACT No. 12  
CONTRACT DRAWING No. 25  
SCALE: 0 1 2 3 4 5 FEET DATE, JULY 7, 1935  
DRAWN BY *E. W. M.*  
CHECKED BY *R. B. Stillwell*  
CHIEF ENGINEER  
FILE NO. I-12







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